

AMAZING STORIES

August, 1936
25 Cents



HE WHO SHRANK

by Henry Hasse

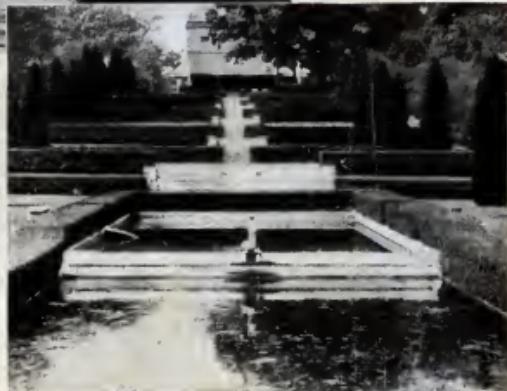
Miles J. Breuer, M.D. John Russell Fearn



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Address

City..... State.....

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AMAZING STORIES

Science Fiction

Vol. 10

AUGUST, 1936

No. 11

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Our Cover depicts a scene from "He Who Shrunk."

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AMAZING STORIES

THE MAGAZINE OF SCIENCE FICTION

VOLUME
10

August, 1936
No. 11

T. O'CONOR SLOANE, Ph.D., *Editor*
Editorial and General Offices: 461 Eighth Avenue, New York, N. Y.

Extravagant Fiction To-day Cold Fact To-morrow

Atlantis and Its Successors

By T. O'CONOR SLOANE, Ph.D.

P LATO, one of the glories of classic Grecian literature, lived in the third and fourth centuries B.C., about two thousand two hundred years ago. He may be taken as the earliest writer who took full cognizance of the country of Atlantis, and in two of his essays devoted to it, he tells us something about it, and only a little, for he left the second of his essays on the subject uncompleted. We do not know whether he believed in it or not. The prevailing idea of modern authorities is to treat the story of Atlantis as fabulous. There were various suppositions concerning its location.

The ancient geographers were familiar with the landlocked Caspian Sea, a great lake in the strict acceptance of the term. They were familiar with the Black Sea, which communicating with the Mediterranean and a tributary to it, was the greatest body of water, next to the Mediterranean, with which they were familiar. Going

westward on the Mediterranean the Straits of Gibraltar are reached. For some reason the straits or their shores were called the Pillars of Hercules. The fact that there are no pillars there adds to the mystery of the ancient name. From the Pillars of Hercules the great Atlantic, extending to unknown regions, gave a suggestion for the location of Atlantis. The name of Atlantic at least suggests the continent of old time legend. A belief quite widely spread accepted the waters to the west of the Pillars as the location of a great country, inhabited by a nation civilized in the ideas of our times. For they were pictured as warlike and as carrying war into other countries, in search of conquest, exactly what is being done in our time. So as far as that development goes, they may be considered highly civilized. The great island or continent was supposed by many to extend far out on the unknown ocean of the West.

When its hour came it was supposed to have sunk into the ocean waters, making a great shoal, with perhaps the tops of some of its highest mountains still remaining unsubmerged.

Believers in this story have found some confirmation of the theory in the Canary Islands or in the Azores, which may be taken as having overlooked the plains of Atlantis in the past. If Atlantis extended half way across the Atlantic it must have been a great continent. There is a confutation of the story in the fact that there is no sign or suggestion of a shoal in that part of the Atlantic. The great expanse of water with its far distant horizon, never explored by Greek or Roman, must have been a profound mystery of the Mediterranean nations. The Pillars of Hercules were a sort of jumping-off place. It was thirteen hundred years after Plato when the Scandinavians crossed the Atlantic, but far to the north where it was quite narrow. Columbus crossed over the alleged site of Atlantis, but he may never have heard of it.

If things had been different the great Grecian writer, Plato, would have given us his ideas of government in 'undoubtedly quite picturesque fashion, but he was cut short, for reasons unknown to us, when he started to write about Atlantis specifically. For he was an early example of the person who is convinced that he can tell how the nations of this earth of ours should be governed and there are many such persons still with us. But if he had left us his tale of Atlantis in complete form, it would have been, we may believe, a Science-Fiction classic. How far he believed in Atlantis we do not know, but he was pretty well at the start of the writers of quite a series of stories of fictitious nations, held up to us as illustrations of how

government should be carried out.

Atlantis is not the only country which has given rise to what are in great part fabulous stories. Plutarch writing in about the first century of the Christian Era, gave a vivid description of the ways of Lycurgus, the celebrated lawgiver of Sparta. The history of Sparta is pretty well known, there is nothing fabulous about it in its historical features. But the traditions of the severity of the government of Lycurgus are told in the histories and even in schoolbooks. The date of the administration of Lycurgus is about twenty eight centuries before our time, so Plutarch was writing about an era nearly a thousand years before his day. But the country which our author had for subject was or rather had been an absolute entity; it was not imaginary, except quite probably as regards the traditional laws of Lycurgus. These were directed to make soldiers out of the people and were in the highest degree despotic and merciless. It was claimed that they made the subjects hardy and stoical in submission to suffering. Flogging was said to be used to make the subject enduring of pain. The Greek name for it was "diamastigosis." Yet when we read of the savage punishments which were inflicted on sailors and soldiers, not so many decades ago, the Sparta of Lycurgus need not unduly horrify us. A thousand lashes was a regular punishment in the army a hundred and seventy years ago. The soldiers of the Continental Army often had to go barefoot, and in the War between the States it is said that General Lee's soldiers were shoeless.

It is a comfort to know that the severities of Sparta were probably exaggerated.

Plato not only had ideas about how

nations should be governed, which he would, we may suppose, have developed in describing Atlantis, but he was witness to or followed the course of one of the most famous acts of a Government, where the injustice took almost the aspect of the absurd. It was the subject of writings by him and by Xenophon. The trial of Socrates was held before a body of Athenian citizens, who, it is fair to say, were in no sense qualified to act as judges. Socrates was condemned to die and his death was by drinking poison. Today in Europe this mode of executing criminals is still practiced, the criminal being given his choice of execution, or of suicide by drinking a solution of potassium cyanide.

Atlantis as it is described in the old traditions was anything but a model country. They fought their way to the east, and how far they carried their conquests is unknown. The crowning uncertainty is that we do not know if there ever was an Atlantis. We can only wish that Plato had completed his story of the mythical land. A convenient way of disposing of Atlantis was to suppose that it had been swallowed up by the ocean. But the great writer never completed his task.

Now if we will take a leap from the days of old Greece and Rome to the sixteenth century we shall find the great Sir Thomas More writing a book on his idea of a model community. This he entitled "Utopia" taken as meaning "No Country." It was very completely under laws, for there was not the least idea in those days, that the best governed country was the one that was least governed. Utopia would have been a good country to live out of. About a century later Lord Bacon gives us his ideas of a well ordered country in his work entitled "The New Atlantis." He gives a de-

scription of a very well disposed people, whose country he places in the Pacific Ocean. The many restrictions of their government were softened by the hospitality with which the strangers from a distant land were received and taken care of, although at first reception it seemed that they had got into a land of very exact laws and many regulations. But there developed a tendency to soften restrictions, and if Lord Bacon's story had not met the fate of Plato's, it would have been very interesting to see how they came out in the end. But the story was never finished.

Other stories have been written on analogous lines, but it would be difficult to find an attractive place for residence among the countries described unless one wanted to be watched and guided in every movement.

In all this period from the days of Sparta or Atlantis to the time of Lord Bacon astonishingly little was done in natural science. The inaction as far as experimental science goes can be laid to an overwhelming conviction of the powers of the human intellect. It never seemed necessary to throw a large and a small stone from a tower to see if they fell at the same rate. The accepted theory was that the larger one would fall the faster. The world had to wait until the sixteenth century to find out that large and small weights, such as stones, fell at the same rate. The isochronism of the pendulum was discovered in the same era, when Galileo swung the great altar lamp in the Cathedral of Pisa, to time its period of oscillation. The modern development of science had to wait until man questioned nature directly, instead of basing nature's laws on pure imperfect human reason, when nature was only too ready to answer any question put

to her intelligently. And what a multitude of interrogatories she has answered in the last two centuries. But man had to be humble enough to ask the questions, putting aside preconceived a priori ideas.

A Franciscan friar, Roger Bacon, of the thirteenth century is supposed to have given the hint of how to ask nature for information, laying aside the pride in the pure intellect as the interpreter of nature's laws.

While the nations of the world were largely occupied in fighting and conquering, or being conquered, and any rational reasons for such actions are hard to find, there was a body of men called philosophers. The word is a compound of two Greek words meaning "Friends of Wisdom." They did good work in geometry and astronomy. In geometry the name of Euclid is still referred to, and he lived in the third century before the Christian era. Euclid's geometry is appealed to and referred to as the basis of most of the modern treatises. His work has lasted two thousand years. In astronomy the wonder is that the old time investigators could do anything without the most primitive telescope to help their vision. Their records are of importance even today.

In the second century before the Christian era we are told of Heron's steam engine. In this the escape of steam from a tangential jet caused the little boiler to rotate at high speed. It was only a toy. But in recent times the reaction of a blast of steam or its blast at high pressure has given us the turbine engine, which has been used so extensively within the last two decades. We may put it that escaping steam turning the motor wheel of a turbine, was what "blows" the modern steamships across the ocean, just as truly as the wind

blew the sailing ship on her course.

The writer has digressed a little from mysterious countries of the fabulous order. But there is one which should not be omitted. The German philosopher, Haeckel, made use of the fact that the members of the lemur family were found in separate bodies of land, to claim that such bodies were at one time a single continent, and this is called "Lemuria," a sort of Darwinian Atlantis. But the theory was confuted by the locating of other distant lands as homes of the lemur. Haeckel pictured a continent including Madagascar and the islands of the Indian Ocean for his Lemuria.

There are many other tales of fictitious countries, which may be regarded as the direct successors of Atlantis. Dean Swift's bitter sarcasm in his stories of the travels of Gulliver are a telling criticism of the poor methods of humanity in the conduct of its public affairs. He even depicts man as inferior to horses, and while we may say this is ridiculous Swift's way of telling us of our failures in the affairs of life, is an excellent example of well applied sarcasm. The novelist, Samuel Butler, for whom a cult has developed of considerable intensity, largely on account of his great novel "The Way of All Flesh," has a story of a model nation in a country called "Erewhon," where under the usual excessive mass of laws and restrictions, man is supposed to lead a happy life. The name of his imaginary country, the reader may observe is the word "Nowhere" spelled backwards, with one letter transposed. The name is a close relative of "Utopia." Not only have books been written about such places, but there have been any number of attempts to establish them on a small scale, especially in the United States.

He Who Shrunk

By HENRY HASSE

The possible size of worlds, the effect on humanity, if the individual were able to inspect and study large and small ones, and an endless series of adventures, conjectures and possibilities, if we may use that word, fill the pages of this strange imaginative relation.

YEARS, centuries, aeons, have fled past me in endless parade, leaving me unscathed: for I am deathless, and in all the universe alone of my kind. Universe? Strange how that convenient word leaps instantly to my mind from force of old habit. Universe? The merest expression of a puny idea in the minds of those who cannot possibly conceive whereof they speak. The word is a mockery. Yet how glibly men utter it! How little do they realize the artificiality of the word!

That night when the Professor called me to him he was standing close to the curved transparent wall of the astrono-laboratory looking out into the blackness. He heard me enter, but did not look around as he spoke. I do not know whether he was addressing me or not.

"They call me the greatest scientist the world has had in all time."

I had been his only assistant for years, and was accustomed to his moods, so I did not speak. Neither did he for several moments and then he continued:

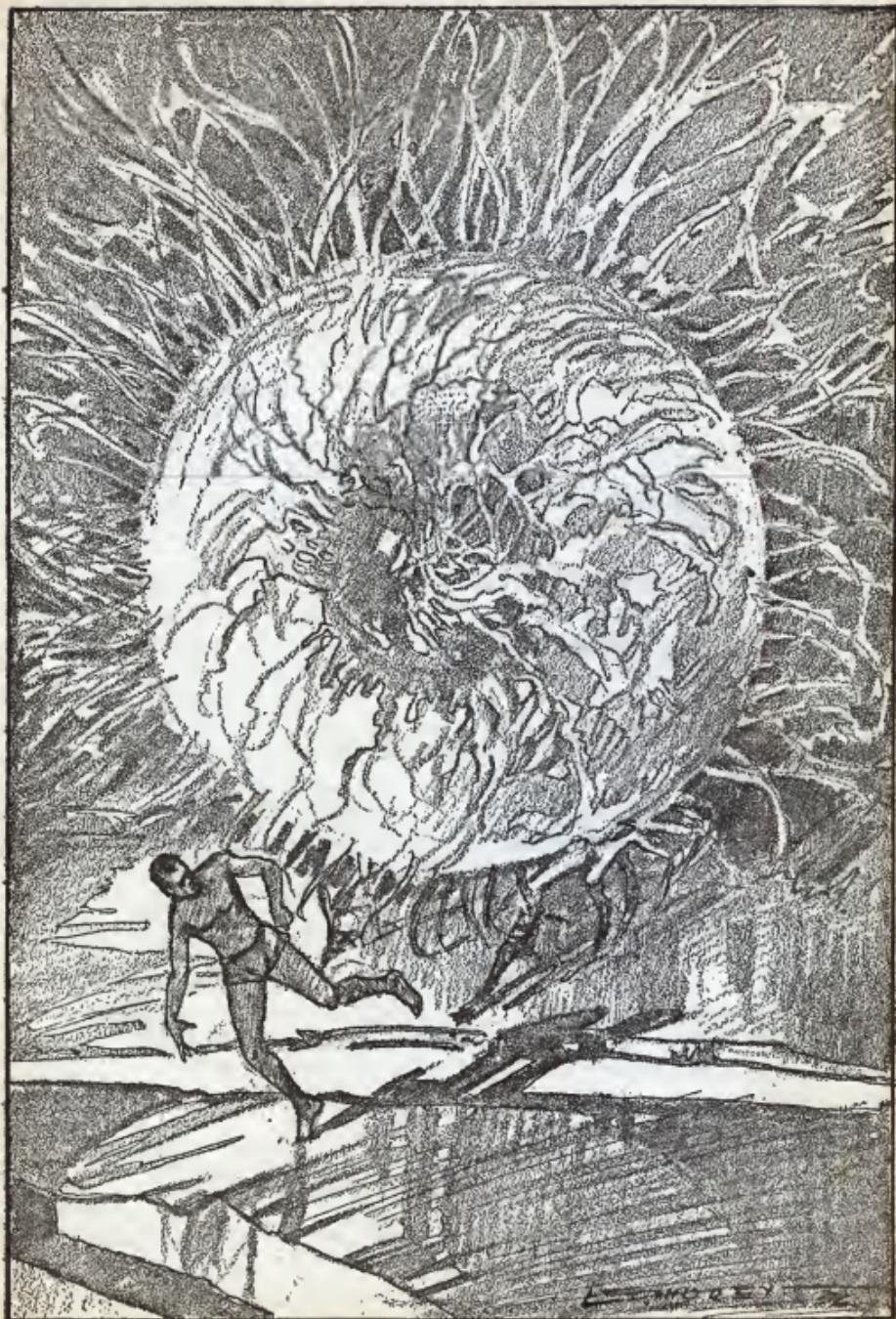
"Only a half year ago I discovered a principle that will be the means of utterly annihilating every kind of disease germ. And only recently I turned over to others the principles of a new toxin which stimulates the

worn-out protoplasmic life-cells, causing almost complete rejuvenation. The combined results should nearly double the ordinary life span. Yet these two things are only incidental in the long list of discoveries I have made to the great benefit of the race."

He turned then and faced me, and I was surprised at a new peculiar glow that lurked deep in his eyes.

"And for these things they call me great! For these puny discoveries they heap honors on me and call me the benefactor of the race. They disgust me, the fools! Do they think I did it for them? Do they think I care about the race, what it does or what happens to it or how long it lives? They do not suspect that all the things I have given them were but accidental discoveries on my part—to which I gave hardly a thought. Oh, you seem amazed. Yet not even you, who have assisted me here for ten years, ever suspected that all my labors and experiments were pointed toward one end, and one end alone."

He went over to a locked compartment which in earlier years I had wondered about and then ceased to wonder about, as I became engrossed in my work. The professor opened it now, and I glimpsed but the usual array of bottles and test-tubes and



Its body was disc shaped, with a long double row of appendages—legs—on the under side. Hundreds of ugly looking spikes rimmed the disc body on the outer and upper edges.

vials. One of these vials he lifted gingerly from a rack.

"And at last I have attained the end," he almost whispered, holding the tube aloft. A pale liquid scintillated eerily against the artificial light in the ceiling. "Thirty years, long years, of ceaseless experimenting, and now, here in my hand—success!"

The Professor's manner, the glow deep in his dark eyes, the submerged enthusiasm that seemed at every instant about to leap out, all served to impress me deeply. It must indeed be an immense thing he had done, and I ventured to say as much.

"Immense!" he exclaimed. "Immense! Why—why it's so immense that—. But wait. Wait. You shall see for yourself."

At that time how little did I suspect the significance of his words. I was indeed to see for myself.

CAREFULLY he replaced the vial, then walked over to the transparent wall again.

"Look!" he gestured toward the night sky. "The unknown! Does it not fascinate you? The other fools dream of some day travelling out there among the stars. They think they will go out there and learn the secret of the universe. But as yet they have been baffled by the problem of a sufficiently powerful fuel or force for their ships. And they are blind. Within a month *I* could solve the puny difficulty that confronts them; could, but I won't. Let them search, let them experiment, let them waste their lives away, what do I care about them?"

I wondered what he was driving at, but realized that he would come to the point in his own way. He went on:

"And suppose they do solve the

problem, suppose they do leave the planet, go to other worlds in their hollow ships, what will it profit them? Suppose that they travel with the speed of light for their own life time, and then land on a star at that point, the farthest point away from here that is possible for them? They would no doubt say: 'We can now realize as never before the truly staggering expanse of the universe. It is indeed a great structure, the universe. We have traveled a far distance; we must be on the fringe of it.'

"Thus they would believe. Only I would know how wrong they were, for I can sit here and look through this telescope and see stars that are fifty and sixty times as distant as that upon which they landed. Comparatively, their star would be infinitely close to us. The poor deluded fools and their dreams of space travel!"

"But Professor," I interposed, "just think—"

"Wait! Now listen. I, too, have long desired to fathom the universe, to determine what it is, the manner and the purpose and the secret of its creation. Have you ever stopped to wonder *what* the universe is? For thirty years I have worked for the answer to those questions. Unknowing, you helped me with your efficiency on the strange experiments I assigned to you at various times. Now I have the answer in that vial, and you shall be the only one to share the secret with me."

Incredulous, I again tried to interrupt.

"Wait!" he said. "Let me finish. There was the time when I also looked to the stars for the answer. I built my telescope, on a new principle of my own. I searched the depths of the void. I made vast calculations. And

I proved conclusively to my own mind what had therefore been only a theory. I know now without doubt that this our planet, and other planets revolving about the sun, are but electrons of an atom, of which the sun is the nucleus. And our sun is but one of millions of others, each with its allotted number of planets, each system being an atom just as our own is in reality.

"And all these millions of solar systems, or atoms, taken together in one group, form a galaxy. As you know, there are countless numbers of these galaxies throughout space, with tremendous stretches of space between them. And what are these galaxies? Molecules! They extend through space even beyond the farthest range of my telescope! But having penetrated that far, it is not difficult to make the final step.

"All of these far-flung galaxies, or molecules, taken together as a whole, form—what? Some indeterminable element or substance on a great, ultramacrocosmic world! Perhaps a minute drop of water, or a grain of sand, or wisp of smoke, or—good God!—an eyelash of some creature living on that world!"

I COULD not speak. I felt myself grow faint at the thought he had propounded. I tried to think it could not be—yet what did I or anyone know about the infinite stretches of space that must exist beyond the ranges of our most powerful telescope?

"It can't be!" I burst out. "It's incredible, it's—monstrous!"

"Monstrous? Carry it a step further. May not that ultra-world *also* be an electron whirling around the nucleus of an atom? And that atom only one of millions forming a mole-

cule? And that molecule only one of millions forming—"

"For God's sake stop!" I cried. "I refuse to believe that such a thing can be! Where would it all lead? Where would it end? It might go on—forever! And besides," I added lamely, "what has all this to do with—your discovery, the fluid you showed me?"

"Just this. I soon learned that it was useless to look to the infinitely large, so I turned to the infinitely small. For does it not follow that if such a state of creation exists in the stars above us, it must exist identically in the atoms below us?"

I saw his line of reasoning, but still did not understand. His next words fully enlightened me, but made me suspect that I was facing one who had gone insane from his theorizing. He went on eagerly, his voice the voice of a fanatic:

"If I could not pierce the stars above, that were so far, then I would pierce the atoms below, that were so near. They are everywhere. In every object I touch and in the very air I breathe. But they are minute, and to reach them I must find a way to make myself as minute as they are, and more so! This I have done. The solution I showed you will cause every individual atom in my body to *contract*, but each electron and proton will also decrease in size, or diameter, in direct proportion to my own shrinkage! Thus will I not only be able to become the size of an atom, but can go down, down into infinite smallness!"

CHAPTER II

WHEN he had stopped speaking I said calmly: "You are mad."

He was imperturbed. "I expected you to say that," he answered. "It is

only natural that that should be your reaction to all that I have said. But no, I am not mad, it is merely that you are unacquainted with the marvelous propensities of 'Shrinx.' But I promised that you should see for yourself, and that you shall. You shall be the first to go down into the atomic universe."

My original opinion in regard to his state of mind remained unshaken.

"I am sure you mean well, Professor," I said, "but I must decline your offer."

He went on as though I hadn't spoken:

"There are several reasons why I want to send you before I myself make the trip. In the first place, once you make the trip there can be no returning, and there are a number of points I want to be quite clear on. You will serve as my advance guard, so to speak."

"Professor, listen. I do not doubt that the stuff you call 'Shrinx' has very remarkable properties. I will even admit that it will do all you say it will do. But for the past month you have worked day and night, with scarcely enough time out for food and hardly any sleep at all. You should take a rest, get away from the laboratory for awhile."

"I shall keep in contact with your consciousness," he said, "through a very ingenious device I have perfected. I will explain it to you later. The 'Shrinx' is introduced directly into the blood stream. Shortly thereafter your shrinkage should begin, and continue at moderate speed, never diminishing in the least degree so long as the blood continues to flow in your body. At least, I hope it never diminishes. Should it, I shall have to make the necessary alterations in the formula. All this is theoretical of

course, but I am sure it will all work according to schedule, and quite without harm."

I had now lost all patience. "See here, Professor," I said crossly, "I refuse to be the object of any of your wild sounding experiments. You should realize that what you propose to do is scientifically impossible. Go home and rest—or go away for a while—"

Without the slightest warning he leaped at me, snatching an object from the table. Before I could take a backward step I felt a needle plunge deep into my arm, and cried out with the pain of it. Things became hazy, distorted. A wave of vertigo swept over me. Then it passed, and my vision cleared. The Professor stood leering before me.

"Yes, I've worked hard and I'm tired. I've worked thirty years, but I'm not tired enough nor fool enough to quit this thing now, right on the verge of the climax!"

His leer of triumph gave way to an expression almost of sympathy.

"I am sorry it had to come about this way," he said, "but I saw that you would never submit otherwise. I really am ashamed of you. I didn't think you would doubt the truth of my statements to the extent of really believing me insane. But to be safe I prepared your allotment of the 'Shrinx' in advance, and had it ready; it is now coursing through your veins, and it should be but a short time before we observe the effects. What you saw in the vial is for myself, when I am ready to make the trip. Forgive me for having to administer yours in such an undignified manner."

So angered was I at the utter disregard he had shown for my personal feelings, that I hardly heard his words. My arm throbbed fiercely

where the needle had plunged in. I tried to take a step toward him, but not a muscle would move. I struggled hard to break the paralysis that was upon me, but could not move a fraction of an inch from where I stood.

The professor seemed surprised too, and alarmed.

"What, paralysis? That is an unforeseen circumstance! You see, it is even as I said: the properties of 'Shinx' are marvelous and many."

He came close and peered intently into my eyes, and seemed relieved.

"However, the effect is only temporary," he assured me. Then added: "But you will likely be a bit smaller when the use of your muscles returns, for your shrinkage should begin very shortly now. I must hurry to prepare for the final step."

He walked past me, and I heard him open his private cupboard again. I could not speak, much less move, and I was indeed in a most uncomfortable, not to mention undignified, position. All I could do was to glare at him when he came around in front of me again. He carried a curious kind of helmet with ear-pieces and goggles attached, and a number of wires running from it. This he placed upon the table and connected the wires to a small flat box there.

All the while I watched him closely. I hadn't the least idea what he was going to do with me, but never for a moment did I believe that I would shrink into an atomic universe; that was altogether too fantastic for my conception.

As though reading my thought the Professor turned and faced me. He looked me over casually for a moment and then said:

"I believe it has begun already. Yes, I am sure of it. Tell me, do you

not feel it? Do not things appear a trifle larger to you, a trifle taller? Ah, I forgot that the paralyzing effect does not permit you to answer. But look at me—do I not seem taller?"

I LOOKED at him. Was it my imagination, or some kind of hypnosis he was asserting on me, that made me think he was growing slightly, ever so slightly, upward even as I looked?

"Ah!" he said triumphantly. "You have noticed. I can tell it by your eyes. However, it is not I who am growing taller, but you who are shrinking."

He grasped me by the arms and turned me about to face the wall. "I can see that you doubt," he said, "so look! The border on the wall. If you remember, it used to be about even with your eyes. Now it is fully three inches higher."

It was true! And I could now feel a tingling in my veins, and a slight dizziness.

"Your shrinkage has not quite reached the maximum speed," he went on. "When it does, it will remain constant. I could not stop it now even if I wanted to, for I have nothing to counteract it. Listen closely now, for I have several things to tell you."

"When you have become small enough I am going to lift you up and place you on this block of Rehyllium-X here on the table. You will become smaller and smaller, and eventually should enter an alien universe consisting of billions and billions of star groups, or galaxies, which are only the molecules in this Rehyllium-X. When you burst through, your size in comparison with this new universe should be gigantic. However, you will constantly diminish, and will be enabled to alight on any one of the spheres of your own choosing. And—

after alighting—you will continue—always down!"

At the concept I thought I would go mad. Already I had become fully a foot shorter, and still the paralysis gripped me. Could I have moved I would have torn the Professor limb from limb in my impotent rage—though if what he said was true, I was already doomed.

Again it seemed as though he read my mind.

"Do not think too harshly of me," he said. "You should be very grateful for this opportunity, for you are going on a marvellous venture, into a marvellous realm. Indeed, I am almost jealous that you should be the first. But with this," he indicated the helmet and box on the table, "I shall keep contact with you no matter how far you go. Ah, I see by your eyes that you wonder how such a thing could be possible. Well, the principle of this device is really very simple. Just as light is a form of energy, so is thought. And just as light travels through an 'ether' in the form of waves, so does thought. But the thought waves are much more intangible—in fact, invisible. Nevertheless the waves are there, and the coils in this box are so sensitized as to receive and amplify them a million times, much as sound waves might be amplified. Through this helmet I will receive but two of your six sensations: those of sound and sight. They are the two major ones, and will be sufficient for my purpose. Every sight and sound that you encounter, no matter how minute, reaches your brain and displaces tiny molecules there that go out in the form of thought waves and finally reach here and are amplified. Thus my brain receives every impression of sight and sound that your brain sends out."

I did not doubt now that his marvelous "Shrinx" would do everything he said it would do. Already I was but one-third of my original size. Still the paralysis showed no sign of releasing me, and I hoped that the Professor knew whereof he spoke when he said the effect would be but temporary. My anger had subsided somewhat, and I think I began to wonder what I would find in that other universe.

Then a terrifying thought assailed me—a thought that left me cold with apprehension. If, as the Professor had said, the atomic universe was but a tiny replica of the universe we knew, would I not find myself in the vast empty spaces between the galaxies *with no air to breathe?* In all the vast calculations the Professor had made, could he have overlooked such an obvious point?

Now I was very close to the floor, scarcely a foot high. Everything about me—the Professor, the tables, the walls—were gigantically out of proportion to myself.

The Professor reached down then, and swung me up on the table top amidst the litter of wires and apparatus. He began speaking again, and to my tiny ears his voice sounded a deeper note.

"Here is the block of Rehyllium-X containing the universe you soon will fathom," he said, placing on the table beside me the square piece of metal, which was nearly half as tall as I was. "As you know, Rehyllium-X is the densest of all known metals, so the universe awaiting you should be a comparatively dense one—though you will not think so, with the thousands of light-years of space between stars. Of course I know no more about this universe than you do, but I would advise you to avoid the very bright

stars and approach only the dimmer ones. Well, this is goodby, then. We shall never see each other again. Even should I follow you—as I certainly shall as soon as I have learned through you what alterations I should make in the formula—it is impossible that I could exactly trace your course down through all the spheres that you will have traversed. One thing already I have learned: the rate of shrinkage is too rapid; you will be able to stay on a world for only a few hours. But perhaps that is best, after all. This is good-by for all time."

He picked me up and placed me upon the smooth surface of the Rehyllium-X. I judged that I must be about four inches tall then. It was with immeasurable relief that I finally felt the paralysis going away. The power of my voice returned first, and expanding my lungs I shouted with all my might.

"Professor!" I shouted. "Professor!"

He bent down over me. To him my voice must have sounded ridiculously high pitched.

"What about the empty regions of space I will find myself in?" I asked a bit tremulously, my mouth close to his ear. "I would last but a few minutes. My life will surely be snuffed out."

"No, that will not happen," he answered. His voice beat upon my ear-drums like thunder, and I placed my hands over my ears.

He understood, and spoke more softly. "You will be quite safe in airless space," he went on. "In the thirty years I have worked on the problem, I would not be likely to overlook that point—though I will admit it gave me much trouble. But as I said, 'Shrinx' is all the more marvelous in the fact that its qualities are many.

After many difficulties and failures, I managed to instill in it a certain potency by which it supplies sufficient oxygen for your need, distributed through the blood stream. It also irradiates a certain amount of heat; and, inasmuch as I consider the supposed sub-zero temperature of space as being somewhat exaggerated, I don't think you need worry about any discomfort in open space."

CHAPTER III

I WAS scarcely over an inch in height now. I could walk about, though my limbs tingled fiercely as the paralysis left. I beat my arms against my sides and swung them about to speed the circulation. The Professor must have thought I was waving goodby. His hand reached out and he lifted me up. Though he tried to handle me gently, the pressure of his fingers bruised. He held me in his open hand and raised me up to the level of his eyes. He looked at me for a long moment and then I saw his lips form the words "good-by." I was terribly afraid he would drop me to the floor a dizzy distance below, and I was relieved when he lowered me again and I slid off his hand to the block of Rehyllium-X.

The Professor now appeared as a giant towering hundreds of feet into the air, and beyond him, seemingly miles away, the walls of the room extended to unimaginable heights. The ceiling above seemed as far away and expansive as the dome of the sky I had formerly known. I ran to the edge of the block and peered down. It was as though I stood at the top of a high cliff. The face of it was black and smooth, absolutely perpendicular. I stepped back apace lest I lose my footing and fall to my death. Far below

extended the vast smooth plain of the table top.

I walked back to the center of the block, for I was afraid of the edge; I might be easily shaken off if the Professor were to accidentally jar the table. I had no idea of my size now, for there was nothing with which I could compare it. For all I knew I might be entirely invisible to the Professor. He was now but an indistinguishable blur, like a far off mountain seen through a haze.

I now began to notice that the surface of the Rehyllium-X block was not as smooth as it had been. As far as I could see were shallow ravines, extending in every direction. I realized that these must be tiny surface scratches that had been invisible before.

I was standing on the edge of one of these ravines, and I clambered down the side and began to walk along it. It was as straight as though laid by a ruler. Occasionally I came to intersecting ravines, and turned to the left or right. Before long, due to my continued shrinkage, the walls of these ravines towered higher than my head, and it was as though I walked along a narrow path between two cliffs.

THEN I received the shock of my life, and my adventure came near to ending right there. I approached one of the intersections. I turned the sharp corner to the right. I came face to face with the How-Shall-I-Describe-It.

It was a sickly bluish white in color. Its body was disc shaped, with a long double row of appendages—legs—on the under side. Hundreds of ugly looking spikes rimmed the disc body on the outer and upper edges. There was no head and apparently no organ

of sight, but dozens of snake-like protuberances waved in my face as I nearly crashed into it. One of them touched me and the creature backed swiftly away, the spikes springing stiffly erect in formidable array.

This impression of the creature flashed upon my mind in the merest fraction of time, for you may be sure that I didn't linger there to take stock of its pedigree. No indeed. My heart choked me in my fright, I whirled and sped down the opposite ravine. The sound of the thing's pursuit lent wings to my feet, and I ran as I had never run before. Up one ravine and down another I sped, doubling to right and left in my effort to lose my pursuer. The irony of being pursued by a germ occurred to me, but the matter was too serious to be funny. I ran until I was out of breath, but no matter which way I turned and doubled the germ was always a hundred paces behind me. Its organ of sound must have been highly sensitive. At last I could run no more, and I darted around the next corner and stopped, gasping for breath.

The germ rushed a short distance past me and stopped, having lost the sound of my running. Its dozens of tentacular sound organs waved in all directions. Then it came unhesitatingly toward me, and again I ran. Apparently it had caught the sound of my heavy breathing. Again I dashed around the next corner, and as I heard the germ approach I held my breath until I thought my lungs would burst. It stopped again, waved its tentacles in the air and then ambled on down the ravine. Silently I sneaked a hasty retreat.

Now the walls of these ravines (invisible scratches on a piece of metal!) towered very high above me as I continued to shrink. Now too I noticed

narrow chasms and pits all around me, in both the walls at the sides and the surface on which I walked. All of these seemed very deep, and some were so wide that I had to leap across them.

At the first I was unable to account for these spaces that were opening all about me, and then I realized with a sort of shock that the Rehyllium-X was becoming *porous*, so small was I in size! Although it was the densest of all known metals, no substance whatsoever could be so dense as to be an absolute solid.

I began to find it increasingly difficult to progress; I had to get back and make running jumps across the spaces. Finally I sat down and laughed as I realized the futility and stupidity of this. Why was I risking my life by jumping across these spaces that were becoming wider as I became smaller, when I had no particular destination anyway—except down. So I may as well stay in one spot.

NO sooner had I made this decision, however, than something changed my mind.

It was the germ again.

I saw it far down the ravine, heading straight for me. It might have been the same one I had encountered before, or its twin brother. But now I had become so small that it was fully fifteen times my own size, and the very sight of the huge beast ambling toward me inspired terror into my heart. Once more I ran, praying that it wouldn't hear the sound of my flight because of my small size.

Before I had gone a hundred yards I stopped in dismay. Before me yawned a space so wide that I couldn't have leaped half the distance. There was escape on neither side, for

the chasm extended up both the walls. I looked back. The germ had stopped. Its mass of tentacles was waving close to the ground.

Then it came on, not at an amble now but at a much faster rate. Whether it had heard me or had sensed my presence in some other manner, I did not know. Only one thing was apparent: I had but a few split seconds in which to act. I threw myself down flat, slid backward into the chasm, and hung there by my hands.

And I was just in time. A huge shape rushed overhead as I looked up. So big was the germ that the chasm which had appeared so wide to me, was inconsequential to it; it ran over the space as though it weren't there. I saw the double row of the creature's limbs as they flashed overhead. Each one was twice the size of my body.

Then happened what I had feared. One of the huge claw-like limbs came down hard on my hand, and a sharp spur raked across it. I could feel the pain all through my arm. The anguish was insufferable. I tried to get a better grip but couldn't. My hold loosened. I dropped down—down—

CHAPTER IV

“THIS is the end.”

Such was my thought in that last awful moment as I slipped away into space. Involuntarily I shut my eyes, and I expected at any moment to crash into oblivion.

But nothing happened.

There was not even the usual sickening sensation that accompanies acceleration. I opened my eyes to a stygian darkness, and put out an exploring hand. It encountered a rough wall which was flashing upward past my face. I was falling, then; but at no

such speed as would have been the case under ordinary circumstances. This was rather as if I were floating downward. Or was it downward? I had lost all sense of up or down or sideways. I doubled my limbs under me and kicked out hard against the wall, shoving myself far away from it.

How long I remained falling—or drifting—there in that darkness I have no way of knowing. But it must have been minutes, and every minute I was necessarily growing smaller.

For some time I had been aware of immense masses all around me. They pressed upon me from every side, and from them came a very faint radiance. They were of all sizes, some no larger than myself and some looming up large as mountains. I tried to steer clear of the large ones, for I had no desire to be crushed between two of them. But there was little chance of that. Although we all drifted slowly along through space together, I soon observed that none of these masses ever approached each other or deviated the least bit from their paths.

As I continued to shrink, these masses seemed to spread out, away from me; and as they spread, the light which they exuded became brighter. They ceased to be masses, and became swirling, expanding, individual stretches of mist, milky white.

They were nebulæ! Millions of miles of space must stretch between each of them! The gigantic mass I had clung to, drawn there by its gravity, also underwent this nebulosity, and now I was floating in the midst of an individual nebula. It spread out as I became smaller, and as it thinned and expanded, what had seemed mist now appeared as

trillions and trillions of tiny spheres in intricate patterns.

I was in the very mist of these spheres! They were all around my feet, my arms, my head! They extended farther than I could reach, farther than I could see. I could have reached out and gathered thousands of them in my hand. I could have stirred and kicked my feet and scattered them in chaotic confusion about me. But I did not indulge in such reckless and unnecessary destruction of worlds. Doubtless my presence here had already done damage enough, displacing millions of them.

I scarcely dared to move a muscle for fear of disrupting the orbits of some of the spheres or wreaking havoc among some solar systems or star groups. I seemed to be hanging motionless among them; or if I were moving in any direction, the motion was too slight to be noticeable. I didn't even know if I were horizontal or vertical, as those two terms had lost all meaning.

As I became smaller, of course the spheres became larger and the space between them expanded, so that the bewildering maze thinned somewhat and gave me more freedom of movement.

I took more cognizance now of the beauty around me. I remembered what the Professor had said about receiving my thought waves, and I hoped he was tuned in now, for I wouldn't have had him miss it for anything.

EVERY hue I had ever known was represented there among the suns and encircling planets: dazzling whites, reds, yellows, blues, greens, violets, and every intermediate shade. I glimpsed also the barren blackness of suns that had burnt out; but these

were infrequent, as this seemed to be a very young universe.

There were single suns with the orbital planets varying in number from two to twenty. There were double suns that revolved slowly about each other as on an invisible axis. There were triple suns that revolved slowly about each other—strange as it may seem—in perfect trihedral symmetry. I saw one quadruple sun: a dazzling white, a blue, a green, and a deep orange. The white and the blue circled each other on the horizontal plane while the green and the orange circled on the vertical plane, thus forming a perfect interlocking system. Around these four suns, in circular orbits, sped sixteen planets of varying size, the smallest on the inner orbits and the largest on the outer. The effect was a spinning, concave disc with the white-blue-green-orange rotating hub in the center. The rays from these four suns, as they bathed the rolling planets and were reflected back into space in many-hued magnificence, presented a sight both beautiful and weird.

I determined to alight on one of the planets of this quadruple sun as soon as my size permitted. I did not find it hard to maneuver to a certain extent; and eventually, when I had become much smaller, I stretched alongside this solar system, my length being as great as the diameter of the orbit of the outermost planet! Still I dared not come too close, for fear the gravity of my bulk would cause some tension in the orbital field.

I caught glimpses of the surface of the outer, or sixteenth planet, as it swung past me. Through rifts in the great billowing clouds I saw vast expanses of water, but no land; and then the planet was moving away from me, on its long journey around

to the other side of the suns. I did not doubt that by the time it returned to my side I would be very much smaller, so I decided to move in a little closer and try to get a look at the fifteenth planet which was then on the opposite side but swinging around in my direction.

I had discovered that if I doubled up my limbs and thrust out violently in a direction opposite that in which I wished to move, I could make fairly good progress, though the effort was somewhat strenuous. In this manner I moved inward toward the sun-cluster, and by the time I had reached the approximate orbit of the fifteenth planet I had become much smaller—was scarcely one-third as long as the diameter of its orbit! The distance between the orbits of the sixteenth and fifteenth planets must have been about 2,500,000,000 miles, according to the old standards I had known; but to me the distance had seemed but a few hundred yards.

I waited there, and finally the planet hove into view from out of the glorious aurora of the suns. Nearer and nearer it swung in its circle, and as it approached I saw that its atmosphere was very clear, a deep saffron-color. It passed me a scant few yards away, turning lazily on its axis opposite the direction of flight. Here, too, as on planet sixteen, I saw a vast world of water. There was only one fairly large island and many scattered small ones, but I judged that probably nine-tenths of the surface area was ocean.

I moved on in to planet fourteen, which I had noticed was a beautiful golden-green color.

BY the time I had maneuvered to the approximate fourteenth orbit I had become so small that the

light of the central suns pained my eyes. When the planet came into sight I could easily see several large continents on the lighted side; and as the dark side turned to the suns, several more continents became visible. As it swung past me I made comparisons and observed that I was now about five times as large as the planet. When it came around again I would try to effect a landing. To attempt a contact with it now would likely prove disastrous to both it and myself.

As I waited there and became smaller my thoughts turned to the Professor. If his amazing theory of an infinite number of sub-universes was true, then my adventure had hardly begun; wouldn't begin until I alighted on the planet. What would I find there? I did not doubt that the Professor, receiving my thought waves, was just as curious as I. Suppose there was life on this world—hostile life? I would face the dangers while the Professor sat in his laboratory far away. This was the first time that aspect of it occurred to me; it had probably never occurred to the Professor. Strange, too, how I thought of him as "far away." Why, he could merely have reached out his hand and moved me, universe and all, on his laboratory table!

Another curious thought struck me: here I was waiting for a planet to complete its circle around the suns. To any beings who might exist on it, the elapsed time would represent a year; but to me it would only be a number of minutes.

At that, it returned sooner than I expected it, curving around to meet me. Its orbit, of course, was much smaller than those of the two outer planets. More minutes passed as it came closer and larger. As nearly as I could judge I was about one-fifth its

size now. It skimmed past me, so closely that I could have reached out and brushed its atmosphere. And as it moved away I could feel its steady tugging, much as if I were a piece of metal being attracted to a magnet. Its speed did not decelerate in the least, but now I was moving along close behind it. It had "captured" me, just as I had hoped it would. I shoved in closer, and the gravity became a steady and stronger pull. I was "falling" toward it. I swung around so that my feet were closest to it, and they entered the atmosphere, where the golden-green touched the blackness of space. They swung down in a long arc and touched something solid. My "fall" toward the planet ceased. I was standing on one of the continents of this world.

CHAPTER V

SO tall was I that the greatest part of my body still extended out into the blackness of space. In spite of the fact that the four suns were the distance of thirteen orbits away, they were of such intense brilliance now that to look directly at them would surely have blinded me. I looked far down my tapering length at the continent on which I stood. Even the multi-colored light reflected from the surface was dazzling to the eye. Too late I remembered the Professor's warning to avoid the brighter suns. Close to the surface a few fleeting wisps of cloud drifted about my limbs.

As the planet turned slowly on its axis I of course moved with it, and shortly I found myself on the side away from the suns, in the planet's shadow. I was thankful for this relief—but it was only temporary. Soon I swung around into the blinding

light again. Then into the shadow, and again into the light. How many times this happened I do not know, but at last I was entirely within the planet's atmosphere; here the rays of the sun were diffused, and the light less intense.

Miles below I could see but a vast expanse of yellow surface, stretching unbroken in every direction. As I looked far behind the curving horizon it seemed that I caught a momentary glimpse of tall, silvery towers of some far-off city; but I could not be sure, and when I looked again it had vanished.

I kept my eyes on that horizon, however, and soon two tiny red specks became visible against the yellow of the plain. Evidently they were moving toward me very rapidly, for even as I looked they became larger, and soon took shape as two blood-red spheres. Immediately I visioned them as some terrible weapons of warfare or destruction.

But as they came close to me and swerved up to where I towered high in the thin atmosphere, I could see that they were not solid at all, as I had supposed, but were gaseous, and translucent to a certain extent. Furthermore, they behaved in a manner that hinted strongly of intelligence. Without visible means of propulsion they swooped and circled about my head, to my utter discomfiture. When they came dangerously close to my eyes I raised my hand to sweep them away, but they darted quickly out of reach.

They did not approach me again, but remained there close together, pulsating in mid air. This queer pulsating of their tenuous substance gave me the impression that they were conferring together; and of course I was the object of their con-

ference. Then they darted away in the direction whence they had come.

My curiosity was as great as theirs had seemed to be, and without hesitation I set out in the same direction. I must have covered nearly a mile at each step, but even so, these gaseous entities easily out-distanced me and were soon out of sight. I had no doubt that their destination was the city—if indeed it were a city I had glimpsed. The horizon was closer now and less curved, due to my decrease in height: I judged that I was barely five or six hundred feet tall now.

IHAD taken but a few hundred steps in the direction the two spheres had gone, when to my great surprise I saw them coming toward me again, this time accompanied by a score of—companions. I stopped in my tracks, and soon they came close and circled about my head. They were all about five feet in diameter, and of the same dark red color. For a minute they darted about as though studying me from every angle; then they systematically arranged themselves in a perfect circle around me. Thin streamers emanated from them, and merged, linking them together and closing the circle. Then other streamers reached slowly out toward me, wavering, cautious.

This, their manner of investigation, did not appeal to me in the least, and I swept my arms around furiously. Instantly all was wild confusion. The circle broke and scattered, the streamers snapped back and they were spheres again. They gathered in a group a short distance away and seemed to consider.

One, whose color had changed to a bright orange, darted apart from them and pulsated rapidly. As clearly as though words had been spoken, I

comprehended. The bright orange color signified anger, and he was rebuking the others for their cowardice.

Led by the orange sphere they again moved closer to me, this time they had a surprise for me. A score of streamers flashed out quick as lightning, and cold blue flames spluttered where they touched me. Electric shocks ran through my arms, rendering them numb and helpless. Again they formed their circle around me, again the streamers emerged and completed the circle, and other streamers reached out caressingly. For a moment they flickered about my head, then merged, enveloping it in a cold red radiance. I felt no sensation at all at the touch, except that of cold.

The spheres began to pulsate again in the manner I had observed before, and immediately this pulsating began I felt tiny needlepoints of ice pierce my brain. A question came impinged upon my consciousness more clearly than would have been possible by spoken word:

"Where do you come from?"

I was familiar with thought transference, had even practised it to a certain extent, very often with astonishing success. When I heard—or received—that question, I tried hard to bring every atom of my consciousness to bear upon the circumstances that were the cause of my being there. When I had finished my mental narration and my mind relaxed from the tension I had put upon it, I received the following impressions:

"We receive no answer; your mind remains blank. You are alien, we have never encountered another of your organism here. A most peculiar organism indeed is one that becomes steadily smaller without apparent

reason. Why are you here, and where do you come from?" The icy fingers probed deeper and deeper into my brain, seeming to tear it tissue from tissue.

Again I tried, my mind focusing with the utmost clearness upon every detail, picturing my course from the very minute I entered the Professor's laboratory to the present time. When I finished I was exhausted from the effort.

Again I received the impression: "You cannot bring your mind sufficiently into focus; we receive only fleeting shadows."

One of the spheres again changed to a bright color, and broke from the circle. I could almost imagine an angry shrug. The streamers relaxed their hold on my brain and began to withdraw—but not before I caught the fleeting impression from the orange one, who was apparently addressing the others: "—very low mentality."

"You're not so much yourself!" I said aloud. But of course such a crude method as speech did not register upon them. I wondered at my inability to establish thought communication with these beings. Either my brain was of such a size as to prevent them from receiving the impression (remember I was still a four or five hundred foot giant on this world), or their state of mentality was indeed so much higher than mine, that I was, to them, lower than the lowest savage. Possibly both, more probably the latter.

BUT they were determined to solve the mystery of my presence before I passed from their world, as I would surely do in a few hours at my rate of shrinkage. Their next move was to place themselves on each side of me in vertical rows extending from

far down near the ground up to my shoulders. Again the luminous ribbons reached out and touched me at the various points. Then as at a given signal they rose high into the air, lifting me lightly as a feather! In perfect unison they sped towards their city beyond the horizon, carrying me perpendicularly with them! I marveled at the manner in which such gaseous entities as these could lift and propel such a material giant as myself. Their speed must have exceeded by far that of sound—though on all this planet there was no sound except the sound of my body swishing through the air.

In a very few minutes I sighted the city, which must have covered an area of a hundred miles square near the edge of a rolling green ocean. I was placed lightly on my feet at the very edge of the city, and once more the circle of spheres formed around my head and once more the cold tendrils of light probed my brain.

"You may walk at will about the city," came the thought, "accompanied by a few of us. You are to touch nothing whatever, or the penalty will be extreme; your tremendous size makes your presence here among us somewhat hazardous. When you have become much smaller we shall again explore your mind, with somewhat different method, and learn your origin and purpose. We realize that the great size of your brain was somewhat of a handicap to us in our first attempt. We go now to prepare. We have awaited your coming for years."

Leaving only a few there as my escort—or guard—the rest of the spheres sped toward a great domed building that rose from a vast plaza in the center of the city.

I was very much puzzled as to their last statement. For a moment I stood there wondering what they could have

meant—"we have awaited your coming for years." Then trusting that this and other things would be answered in the due course of their investigation, I entered the city.

It was not a strange city in so far as architecture was concerned, but it was a beautiful one. I marveled that it could have been conceived and constructed by these confluent globules of gas who at first glance seemed anything but intelligent, reasoning beings. Tall as I was, the buildings towered up to four and five times my height, invariably ending in domed roofs. There was no sign of a spire or angle as far as my eye could see; apparently they grated harshly on the senses of these beings. The entire plan of the city was of vast sweeping curves and circular patterns, and the effect was striking. There were no preconceived streets or highways, nor connecting spans between buildings, for there was no need of them. The air was the natural habitable element of this race, and I did not see a one of them ever touch the ground or any surface.

They even came to rest in mid air, with a slow spinning motion. Everywhere I passed among them they paused, spinning, to observe me in apparent curiosity, then went on about their business, whatever it was. None ever approached me except my guards.

FOR several hours I wandered about in this manner, and finally when I was much smaller I was bade to walk towards the central plaza.

In the circular domed building the others awaited my coming, gathered about a dais surmounted by a huge oval transparent screen of glass or some similar substance. This time only one of the spheres made contact

with my brain, and I received the following thought: "Watch."

The screen became opaque, and a vast field of white came into view.

"The great nebula in which this planet is but an infinitesimal speck," came the thought.

The mass drifted almost imperceptibly across the screen, and the thought continued:

"As you see it now, so it appeared to us through our telescopes centuries ago. Of course the drifting motion of the nebula as a whole was not perceptible, and what you see is a chemically recorded reproduction of the view, which has been speeded up to make the motion visible on the screen. Watch closely now."

The great mass of the nebula had been quiescent, but as I watched, it began to stir and swirl in a huge spiral motion, and a vast dark shadow was thrown across the whole scene. The shadow seemed to recede—no, grew smaller—and I could see that it was not a shadow but a huge bulk. This bulk was entering the nebula, causing it to swirl and expand as millions of stars were displaced and shoved outward.

The thought came again: "The scene has been speeded up a million-fold. The thing you see taking place actually transpired over a great number of years; our scientists watched the phenomenon in great wonder, and many were the theories as to the cause of it. You are viewing yourself as you entered our nebula."

I watched in a few minutes the scene before me, as these sphere creatures had watched it over a period of years; saw myself grow smaller, gradually approach the system of the four suns and finally the gold-green planet itself. Abruptly the screen cleared.

"So we watched and awaited your coming for years, not knowing what you were or whence you came. We are still very much puzzled. You become steadily smaller, and that we cannot understand. We must hurry. Relax. Do not interfere with our process by trying to think back to the beginning, as you did before; it is all laid bare to us in the recesses of your brain. Simply relax, think of nothing at all, watch the screen."

I tried to do as he said, again I felt the cold probing tendrils in my brain, and a lethargy came over my mind. Shadows flashed across the screen, then suddenly a familiar scene leaped into view: the Professor's laboratory as I had last seen it, on the night of my departure. No sooner had this scene cleared than I entered the room, exactly as I had on that night. I saw myself approach the table close behind the Professor, saw him standing as he had stood, staring out at the night sky; saw his lips move.

The spheres about me crowded close to the screen, seemed to hang intent on every motion that passed upon it, and I sensed great excitement among them. I judged that the one who was exploring my mind, if not all of them, were somehow cognizant not only of the words the Professor and I spoke in those scenes, but of their meaning as well.

I could almost read the Professor's lips as he spoke. I saw the utter amazement, then incredulity, then disbelief; on my features as he propounded his theory of macrocosmic worlds and still greater macrocosmic worlds. I saw our parley of words, and finally his lunge toward me and felt again the plunge of the needle into my arm.

As this happened the spheres around me stirred excitedly.

I saw myself become smaller, smaller, to be finally lifted onto the block of Rehyllium-X where I became still smaller and disappeared. I saw my meeting with the germ, and my wild flight; my plunge into the abyss, and my flight down through the darkness, during which time the entire screen before me became black. The screen was slightly illuminated again as I traveled along with the great masses all around me, and then gradually across the screen spread the huge nebula, the same one these sphere creatures had seen through their telescopes centuries ago. Again the screen cleared abruptly, became transparent.

"The rest we know," came the thought of the one who had searched my brain. "The rest the screen has already shown. He—the one who invented the—what he called 'Shrinx'—he is a very great man. Yours has indeed been a marvelous experience, and one which has hardly begun. We envy you, lucky being; and at the same time we are sorry for you. Anyway, it is fortunate for us that you chose our planet on which to alight, but soon you will pass away even as you came, and that we cannot, and would not, prevent. In a very few minutes you will once more become of infinitesimal size and pass into a still smaller universe. We have microscopes powerful enough to permit us to barely glimpse this smaller atomic universe, and we shall watch your further progress into the unknown until you are gone from our sight forever."

I had been so interested in the familiar scenes on the screen that I had lost all conception of my steady shrinkage. I was now very much smaller than those spheres around me.

I was as interested in them as they were in me, and I tried to flash the following thought:

"You say that you envy me, and are sorry for me. Why should that be?"

The thought came back immediately: "We cannot answer that. But it is true; wonderful as are the things you will see in realms yet to come, nevertheless you are to be pitied. You cannot understand at present, but some day you will."

I flashed another thought: "Your organism, which is known to me as gaseous, seems as strange to me as mine, a solid, must seem to you. You have mentioned both telescopes and microscopes, and I cannot conceive how beings such as yourselves, without organs of sight, can number astronomy and microscopy among the sciences."

"Your own organs of sight," came back the answer, "which you call 'eyes,' are not only superfluous, but are very crude sources of perception. I think you will grant that loss of them would be a terrible and permanent handicap. Our own source of perception is not confined to any such conspicuous organs, but envelops the entire outer surface of our bodies. We have never had organs and appendages such as those with which you are endowed so profusely, for we are of different substance; we merely extend any part of our bodies in any direction at will. But from close study of your structure, we conclude that your various organs and appendages are very crude. I predict that by slow evolution of your own race, such frailties will disappear entirely."

"Tell me more about your own race," I went on eagerly.

"To tell everything there is to tell," came the answer, "would take much

time; and there is little time left. We have a very high sociological system, but one which is not without its faults, of course. We have delved deep into the sciences and gone far along the lines of fine arts—but all of our accomplishments along these lines would no doubt appear very strange to you. You have seen our city. It is by no means the largest, nor the most important, on the planet. When you alighted comparatively near, reports were sent out and all of our important scientists hurried here. We were not afraid because of your presence, but rather, were cautious, for we did not know what manner of being you were. The two whom you first saw, were sent to observe you. They had both been guilty of a crime against the community, and were given the choice of the punishment they deserved, or of going out to investigate the huge creature that had dropped from the sky. They accepted the latter course, and for their bravery—for it was bravery—they have been exonerated."

CHAPTER VI

I WOULD have liked greatly to ask more questions, for there were many phases that puzzled me; but I was becoming so very small that further communication upon the slide of a microscope of strange and intricate construction and my progress continued unabated down into a still smaller atomic universe.

The method was the same as before. The substance became open and porous, spread out into open space dotted with the huge masses which in turn became porous and resolved into far flung nebulae.

I entered one of the nebulae and once more star-systems swung all

around me. This time I approached a single sun of bright yellow hue, around which swung eight planets. I maneuvered to the outermost one, and when my size permitted, made contact with it.

I was now standing on an electron, one of billions forming a microscopic slide that existed in a world which was in turn only an electron in a block of metal on a laboratory table!

Soon I reached the atmosphere, and miles below me I could see only wide patches of yellow and green. But as I came nearer to the surface more of the details became discernible. Almost at my feet a wide yellow river wound sluggishly over a vast plateau which fell suddenly away into a long line of steep precipices. At the foot of these precipices stretched a great green expanse of steaming jungle, and farther beyond a great ocean, smooth as green glass, curved to the horizon. A prehistoric world of jungles and great fern-like growths and sweltering swamps and cliffs. Not a breeze stirred and nowhere was there sight of any living thing.

I was standing in the jungle close to the towering cliffs, and for a half mile in every direction the trees and vegetation were trampled into the soil where my feet had swung down and contacted.

Now I could see a long row of caves just above a ledge half way up the side of the cliff. And I did not doubt that in each cave some being was peering furtively out at me. Even as I watched I saw a tiny figure emerge and walk out on the ledge. He was very cautious, ready to dash back into the cave at any sign of hostility on my part, and his eyes never left me. Seeing that nothing happened, others took heart and came out, and soon the ledge was lined with tiny figures who talked

excitedly among themselves and gesticated wildly in my direction. My coming must surely have aroused all their superstitious fears—a giant descending out of the skies to land at their very feet.

I must have been nearly a mile from the cliff, but even at that distance I could see that the figures were barbarians, squat and thick muscled, and covered with hair; they were four limbed and stood erect, and all carried crude weapons.

One of them raised a bow as tall as himself and let fly a shaft at me—evidently as an expression of contempt or bravado, for he must have known that the shaft couldn't reach half the distance. Immediately one who seemed a leader among them felled the miscreant with a single blow. This amused me. Evidently their creed was to leave well enough alone.

Experimentally I took a step toward them, and immediately a long line of bows sprang erect and scores of tiny shafts arched high in my direction to fall into the jungle far in front of me. A warning to keep my distance.

I could have strode forward and swept the lot of them from the ledge; but wishing to show them that my intentions were quite peaceful, I raised my hands and took several backward steps. Another futile volley of arrows. I was puzzled, and stood still; and as long as I did not move neither did they.

The one who had seemed the leader threw himself down flat and shielding his eyes from the sun, scanned the expanse of jungle below. Then they seemed to talk among themselves again, and gestured not at me, but at the jungle. Then I comprehended. Evidently a hunting party was somewhere in that jungle which spread out

around my feet—probably returning to the caves, for already it was nearing dusk, the sun casting weird conflicting streaks across the horizon. These people of the caves were in fear that I would move around too freely and perhaps trample the returning party under foot.

So thinking, I stood quietly in the great barren patch I had levelled, and sought to peer into the dark growth below me. This was nearly impossible, however, for clouds of steam hung low over the tops of the trees.

But presently my ears caught a faint sound, as of shouting, far below me, and then I glimpsed a long single file of the barbarian hunters running at full speed along a well beaten game path. They burst into the very clearing in which I stood, and stopped short in surprise, evidently aware for the first time of my gigantic presence on their world. They let fall the poles upon which were strung the carcasses of the day's hunt, cast but one fearful look up to where I towered, then as one man fell flat upon the ground in abject terror.

All except one. I doubt if the one, who burst from the tangle of trees last of all, even saw me, so intent was he in glancing back into the darkness from which he fled. At any rate he aroused his companions with a few angry, guttural syllables, and pointed back along the path.

At that moment there floated up to me a roar that lingered loud and shuddering in my ears. At quick instructions from their leader the hunters picked up their weapons and formed a wide semi-circle before the path where they had emerged. The limb of a large tree overhung the path at this point, and the leader clam-

bered up some overhanging vines and was soon crouched upon it. One of the warriors fastened a vine to a large clumsy looking weapon, and the one in the tree drew it up to him. The weapon consisted merely of a large pointed stake some eight feet long, with two heavy stones fastened securely to it at the half way point. The one in the tree carefully balanced this weapon on the limb, directly over the path, point downward. The semi-circle of hunters crouched behind stout lances set at an angle in the ground.

Another shuddering roar floated up to me, and then the beast appeared. As I caught sight of it I marveled all the more at the courage of these puny barbarians. From ground to shoulder the beast must have measured seven feet tall, and was fully twenty feet long. Each of its six legs ended in a wide, horny claw that could have ripped any of the hunters from top to bottom. Its long tapering tail was horny too, giving me the impression that the thing was at least partly reptilian; curved fangs fully two feet long, in a decidedly animal head, offset that impression, however.

For a long moment the monstrosity stood there, tail switching ceaselessly, glaring in puzzlement out upon the circle of puny beings who dared to confront it. Then, as its tail ceased switching and it tensed for the spring, the warrior on the limb above launched his weapon—launched it and came hurtling down with it, feet pressed hard against the heavy stone balance!

Whether the beast below heard some sound or whether a sixth sense warned it, I do not know; but just in time it leaped to one side with an agility belied by its great bulk, and the pointed stake drove deep into the

ground, leaving the one who had ridden it lying there stunned.

The beast uttered a snarl of rage; its six legs sprawled outward, its great belly touched the ground. Then it sprang out upon the circle of crouching hunters. Lances snapped at the impact, and the circle broke and fled for the trees. But two of them never rose from the ground, and the lashing horned tail flattened another before he had taken four steps.

The scene took place in a matter of seconds as I towered there looking down upon it, fascinated. The beast whirled toward the fleeing ones and in another moment the destruction would have been terrible, for they could not possibly have reached safety.

Breaking the spell that was on me I swung my hand down in a huge arc even as the beast sprang for a second time. I slapped it in mid air, flattening it against the ground as I would have flattened a bothersome insect. It did not twitch a muscle, and a dark red stain seeped outward from where it lay.

The natives stopped in their flight, for the sound of my hand when I slapped the huge animal had been loud. They jabbered noisily among themselves, but fearfully kept their distance, when they saw me crouched there over the flattened enemy who had been about to wreak destruction among them.

Only one had seen the entire happening. He who had plunged downward from the tree was only momentarily stunned; he had risen dizzily to his feet as the animal charged out among his companions, and had been witness to the whole thing.

Glancing half contemptuously at the others, he now approached me. It

must have taken a great deal of courage on his part, for, crouched down as I was, I still towered above the tallest trees. He looked for a moment at the dead beast, then gazed up at me in reverent awe. Falling prone, he beat his head upon the ground several times, and the others followed his example.

Then they all came forward to look at the huge animal.

From their talk and gestures, I gathered that they wanted to take it to the caves; but it would take ten of the strongest of them to even lift it, and there was still a mile stretch of jungle between them and the cliffs.

I decided that I would take it there for them if that was their want. Reaching out, I picked up the leader, the brave one, very gently. Placing him in the cupped hollow of my hand, I swung him far up to the level of my eyes. I pointed at the animal I had slain, then pointed toward the cliffs. But his eyes were closed tightly as if his last moment had come, and he trembled in every limb. He was a brave hunter, but this experience was too much. I lowered him to the ground unharmed, and the others crowded around him excitedly. He would soon recover from his fright, and no doubt some night around the camp fires he would relate this wonderful experience to a bunch of skeptical grandchildren.

Picking the animal up by its tapering tail I strode through the jungle with it, flattening trees at every step and leaving a wide path behind me. I neared the cliffs in a few steps, and those upon the ledge fled into the caves. I placed the huge carcass on the ledge, which was scarcely as high as my shoulders, then turned and strode away to the right, intending to explore the terrain beyond.

FOR an hour I walked, passing other tribes of cliff dwellers who fled at my approach. Then the jungle ended in a point by the sea and the line of cliffs melted down into a rocky coast.

It had become quite dark now, there were no moons and the stars seemed dim and far away. Strange night cries came from the jungle, and to my left stretched wide, tangled marshes through which floated vague phosphorescent shapes. Behind me tiny fires sprang up on the face of the cliffs, a welcome sight, and I turned back toward them. I was now so much smaller that I felt extremely uneasy at being alone and unarmed at night on a strange planet abounding in monstrosities.

I had taken only a few steps when I felt, rather than heard, a rush of wings above and behind me. I threw myself flat upon the ground, and just in time, for the great shadowy shape of some huge night-creature swept down and sharp talons raked my back. I arose with apprehension after a few moments, and saw the creature winging its way back low over the marshes. Its wing spread must have been forty feet. I reached the shelter of the cliffs and stayed close to them thereafter.

I came to the first of the shelving ledges where the fires burned, but it was far above me now. I was a tiny being crouched at the base of the cliffs. I, an alien on this world, yet a million years ahead of these barbarians in evolution, peered furtively out into the darkness where glowing eyes and half-seen shapes moved on the edge of the encroaching jungle; and safe in their caves high above me were those so low in the state of evolution that had only the rudiments of a spoken language and were

only beginning to learn the value of fire. In another million years perhaps a great civilization would cover this entire globe: a civilization rising by slow degrees from the mire and the mistakes and the myths of the dawn of time. And doubtlessly one of the myths would concern a great god-like figure that descended from the skies, leveled great trees in its stride, saved a famous tribe from destruction by slaying huge enemy beasts, and then disappeared forever during the night. And great men, great thinkers, of that future civilization would say: "Fie! Preposterous! A stupid myth."

But at the present time the god-like figure which slew enemy beasts by a slap of the hand was scarcely a foot high, and sought a place where he might be safe from a possible attack by those same beasts. At last I found a small crevice, which I squeezed into and felt much safer than I had out in the open.

And very soon I was so small that I would have been unnoticed by any of the huge animals that might venture my way.

CHAPTER VII

AT last I stood on a single grain of sand, and other grains towered up like smooth mountains all around me. And in the next few minutes I experienced the change for the third time—the change from microscopic being on a gigantic world to a gigantic being floating amid an endless universe of galaxies. I became smaller, the distance between galaxies widened, solar systems approached and neared the orbit of the outermost planet, I received a very unexpected, but very pleasant, surprise. Instead of myself landing upon one of the plan-

ets—and while I was yet far too large to do so—the inhabitants of this system were coming out to land on me!

There was no doubt about it. From the direction of the inner planets a tapering silvery projectile moved toward me with the speed of light. This was indeed interesting, and I halted my inward progress to await developments.

In a few minutes the space rocket-ship was very close. It circled about me once, then with a great rush of flame and gases from the prow to break the fall, it swooped in a long curve and landed gracefully on my chest! I felt no more jar than if a fly had alighted on me. As I watched it, a square section swung outward from the hull and a number of things emerged. I say "things" because they were in no manner human, although they were so tiny that I could barely distinguish them as minute dots of gold. A dozen of them gathered in a group a short distance away from the space-ship.

After a few moments, to my surprise, they spread huge golden wings, and I gasped at the glistening beauty of them. They scattered in various directions, flying low over the surface of my body. From this I reasoned that I must be enveloped in a thin layer of atmosphere, as were the planets. These bird creatures were an exploring party sent out from one of the inner planets to investigate the new large world which had entered their system and was approaching dangerously close to their own planet.

But, on second thought, they must have been aware—or soon would be—that I was not a world at all, but a living, sentient being. My longitudinal shape should make that apparent,

besides the movements of my limbs. At any rate they displayed unprecedented daring by coming out to land on me. I could have crushed their frail ship at the slightest touch or flung it far out into the void beyond their reach.

I wished I could see one of the winged creatures at closer range, but none landed on me again; having traversed and circled me in every direction they returned to the space-ship and entered it. The section swung closed, gases roared from the stern tubes and the ship swooped out into space again and back toward the sun.

What tidings would they bear to their planet? Doubtlessly they would describe me as an inconceivably huge monstrosity of outer space. Their scientists would wonder whence I came; might even guess at the truth. They would observe me anxiously through their telescopes. Very likely they would be in fear that I would invade or wreck their world, and would make preparations to repulse me if I came too near.

In spite of these probabilities I continued my slow progress toward the inner planets, determined to see and if possible land upon the planet of the bird creatures. A civilization that had achieved space travel must be a marvelous civilization indeed.

AS I made my way through space between the planets by means of my grotesque exertions, I reflected upon another phase. By the time I reached the inner planets I would be so much smaller that I could not determine which of the planets was the one I sought, unless I saw more of the space ships and could follow their direction. Another interesting thought was that the inner planets would

have sped around the green sun innumerable times, and years would have passed before I reached there. They would have ample time to prepare for my coming, and might give me a fierce reception if they had many more of the space ships such as the one I had seen.

And they did indeed have many more of them, as I discovered after an interminable length of time during which I had moved ever closer to the sun. A red-tinged planet swung in a wide curve from behind the blazing green of the sun, and I awaited its approach. After a few minutes it was so close that I could see a moon encircling the planet, and as it came still nearer I saw the rocket ships.

This, then, was the planet I sought. But I was puzzled. They surely could not have failed to notice my approach, and I had expected to see a host of ships lined up in formidable array. I saw a host of them all right, hundreds of them, but they were not pointed in my direction at all; indeed, they seemed not to heed me in the least, although I must have loomed large as their planet came nearer. Perhaps they had decided, after all, that I was harmless.

But what seemed more likely to me was that they were confronted with an issue of vastly more importance than my close proximity. For as I viewed the space ships they were leaving the atmosphere of their planet, and were pointing toward the single satellite. Row upon row, mass upon endless mass they moved outward, hundreds, thousands of them. It seemed as though the entire population was moving *en masse* to the satellite!

My curiosity was immediately aroused. What circumstances or condition would cause a highly civilized

race to abandon their planet and flee to the satellite? Perhaps, if I learned, I would not want to alight on that planet

Impatiently I awaited its return as it moved away from me on its circuit around the sun. The minutes seemed long, but at last it approached again from the opposite direction, and I marvelled at the relativity of size and space and time. A year had passed on that planet and satellite, and many things might have transpired since I had last seen them.

The satellite swung between the planet and myself, and even from my point of disadvantage I could see that many things had indeed transpired. The bird people were building a protective shell around the satellite! Protection—from what? The shell seemed to be of dull gray metal, and already covered half the globe. On the uncovered side I saw land and rolling oceans. Surely, I thought, they must have the means of producing artificial light; but somehow it seemed blasphemous to forever bar the surface from the fresh pure light of the green sun. In a manner I felt sorry for them in their circumstances. But they had their space ships, and in time could move to the vast unexplored fields that the heavens offered.

More than ever I was consumed with curiosity, but was still too large to attempt a contact with the planet, and I let it pass me for a second time. I judged that when it came around again I would be sufficiently small for its gravity to "capture" me and sufficiently large that the "fall" to the surface would in no means be dangerous; and I was determined to alight.

Another wait of minutes, more minutes this time because I was smaller and time for me was correspondingly

longer. When the two spheres hove into view again I saw that the smaller one was now entirely clad in its metal jacket, and the smooth unbroken surface shimmered boldly in the green glare of the sun. Beneath that barren metal shell were the bird people with their glorious golden wings, their space ships, their artificial light, and atmosphere, and civilization. I had but a glance for the satellite, however; my attention was for the planet rushing ever closer to me.

Everything passed smoothly and without mishap. I was becoming an experienced "planet hopper." Its gravity caught me in an unrelenting grip, and I let my limbs rush downward first in their long curve, to land with a slight jar on solid earth far below.

Bending low, I sought to peer into the murky atmosphere and see something of the nature of this world. For a minute my sight could not pierce the half gloom, but gradually the surface became visible. First, I followed my tapering limbs to where they had contacted. As nearly as I could ascertain from my height, I was standing in the midst of what seemed to be a huge mass of crushed and twisted metal!

NOW, I thought to myself, I have done it. I have let myself in for it now. I have wrecked something, some great piece of machinery it seems, and the inhabitants will not take the matter lightly. Then I thought: the inhabitants? Who? Not the bird people, for they have fled, have barricaded themselves on the satellite.

Again I sought to pierce the gloom of the atmosphere, and by slow degrees more details became visible.

At first my gaze only encompassed a few miles, then more, and more, until at last the view extended from horizon to horizon and included nearly an entire hemisphere.

Slowly the view cleared and slowly comprehension came; and as full realization dawned upon me, I became momentarily panic stricken. I thought insanely of leaping outward into space again, away from the planet, breaking the gravity that held me; but the opposite force of my spring could likely send the planet careening out of its orbit and it and all the other planets and myself might go plunging toward the sun. No, I had put my feet on this planet and I was here to stay.

But I did not feel like staying, for what a sight I had glimpsed! As far as I could see in every direction were huge, grotesque metal structures and strange mechanical contrivances. The thing that terrified me was that these machines were scurrying about the surface all in apparent confusion, seemed to cover the entire globe, seemed to have a complete civilization of their own, and nowhere was there the slightest evidence of any human occupancy, no controlling force, no intelligence, nothing save the machines. And I could not bring myself to believe that they were possessed of intelligence!

Yet as I descended ever closer to the surface I could see that there was no confusion at all as it had seemed at first glance, but rather was there a simple, efficient, systematic order of things. Even as I watched, two strange mechanisms strode towards me on great jointed tripods, and stopped at my very feet. Long, jointed metal arms, with claw-like fixtures at the ends, reached out with uncanny accuracy and precision and began

to clear away the twisted débris around my feet. As I watched them I admired the efficiency of their construction. No needless intricacies, no superfluous parts, only the tripods for movement and the arms for clearing. When they had finished they went away, and other machines came on wheels, the débris was lifted by means of cranes and hauled away.

I watched in stupefaction the uncanny activities below and around me. There was no hurry, no rush, but every machine from the tiniest to the largest, from the simplest to the most complicated, had a certain task to perform, and performed it directly and completely, accurately and precisely. There were machines on wheels, on treads, on tracks, on huge multi-jointed tripods, winged machines that flew clumsily through the air, and machines of a thousand other kinds and variations.

Endless chains of machines delved deep into the earth, to emerge with loads of ore which they deposited, to descend again.

Huge hauling machines came and transported the ore to roaring mills.

Inside the mills machines melted the ore, rolled and cut and fashioned the steel.

Other machines builded and assembled and adjusted intricate parts, and when the long process was completed the result was—more machines! They rolled or ambled or flew or walked or rattled away under their own power, as the case might be.

Some went to assist in the building of huge bridges across rivers and ravines.

Diggers went to level down forest and obstructing hills, or went away to the mines.

Others built adjoining mills and factories.

Still others erected strange, complicated towers thousands of feet high, and the purpose of these skeleton skyscrapers I could not determine. Even as I watched, the supporting base of one of them weakened and buckled, and the entire huge edifice careened at a perilous angle. Immediately a host of tiny machines rushed to the scene. Sharp white flames cut through the metal in a few seconds, and the tower toppled with a thunderous crash to the ground. Again the white-flame machines went to work and cut the metal into removable sections, and hoisters and haulers came and removed them. Within fifteen minutes another building was being erected on the exact spot.

Occasionally something would go wrong—some worn-out part ceased to function and a machine would stop in the middle of its task. Then it would be hauled away to repair shops, where it would eventually emerge good as new.

I saw two of the winged machines collide in mid air, and metal rained from the sky. A half dozen of the tripod clearing machines came from a half dozen directions and the metal was raked into huge piles; then came the cranes and hauling machines.

A great vertical wheel with slanting blades on the rim spun swiftly on a shaft that was borne forward on treads. The blades cut through trees and soil and stone as it bore onward toward the near-by mountains. It slowed down, but did not stop, and at length a straight wide path connected the opposite valley. Behind the wheel came the tripods, clearing the way of all débris, and behind them came machines that laid down long strips of metal, completing the perfect road.

Everywhere small lubricating machines moved about, periodically supplying the others with the necessary oil that insured smooth movement.

Gradually the region surrounding me was being levelled and cleared, and a vast city was rising—a city of meaningless, towering, ugly metal—a city covering hundreds of miles between the mountains and sea—a city of machines—ungainly, lifeless—yet purposeful—for what? What?

In the bay, a line of towers rose from the water like fingers pointing at the sky. Beyond the bay and into the open sea they extended. Now the machines were connecting the towers with wide network and spans. A bridge! They were spanning the ocean, connecting the continents—a prodigious engineering feat. If there were not already machines on the other side, there soon would be. No, not soon. The task was gigantic, fraught with failures, almost impossible. *Almost?* A world of machines could know no almost. Perhaps other machines did occupy the other side, had started the bridge from there, and they would meet in the middle. And for what purpose?

A great wide river came out of the mountains and went winding toward the sea. For some reason a wall was being constructed diagonally across the river and beyond, to change its course. For some reason—or unreason.

Unreason! That was it! Why, why, why, I cried aloud in an anguish that was real; why all of this? What purpose, what meaning, what benefit? A city, a continent, a world, a civilization of machines! Somewhere on this world there must be the one who caused all this, the one intelligence, human or unhuman, who controls it. My time here is limited, but I have

time to seek him out, and if I find him I shall drag him out and feed him to his own machines and put a stop to this diabolism for all time!

I STRODE along the edge of the sea for five hundred miles, and rounding a sharp point of land, stopped abruptly. There before me stretched a city, a towering city of smooth white stone and architectural beauty. Spacious parks were dotted with winged colonnades and statues, and the buildings were so designed that everything pointed upward, seemed poised for flight.

That was one half of the city.

The other half was a ruinous heap of shattered white stone, of buildings levelled to the ground by the machines, which were even then intent on reducing the entire city to a like state.

As I watched I saw scores of the flame-machines cutting deep into the stone and steel supporting base of one of the tallest buildings. Two of the ponderous air machines, trailing a wide mesh-metal network between them, rose clumsily from the ground on the outskirts of the city. Straight at the building they flew, and passed one on each side of it. The metal netting struck, jerked the machines backward, and the tangled mass of them plunged to the ground far below. But the building, already weakened at the base, swayed far forward, then back, hung poised for a long shuddering moment and then toppled to the ground with a thunderous crash amid a cloud of dust and débris and tangled framework.

The flame-machines moved on to another building, and on a slope near the outskirts two more of the air machines waited

Sickened at the purposeless vandal-

ism of it all, I turned inland; and everywhere I strode were the machines, destroying and building, leveling to the ground the deserted cities of the bird people and building up their own meaningless civilization of metal.

At last I came to a long range of mountains which towered up past the level of my eyes as I stood before them. In two steps I stood on the top of these mountains and looked out upon a vast plain dotted everywhere with the grotesque machine-made cities. The machines had made good progress. About two hundred miles to the left a great metal dome rose from the level of the plain, and I made my way toward it, striding unconcerned and recklessly amidst the machines that moved everywhere around my feet.

As I neared the domed structure a row of formidable looking mechanisms, armed with long spikes, rose up to bar my path. I kicked out viciously at them and in a few minutes they were reduced to tangled scrap, though I received a number of minor scratches in the skirmish. Others of the spiked machines rose up to confront me with each step I took, but I strode through them, kicking them to one side, and at last I stood before an entrance-way in the side of the huge dome. Stooping, I entered, and once inside my head almost touched the roof.

I had hoped to find here what I sought, and I was not disappointed. There in the center of the single spacious room was The Machine of all Machines; the Cause of it All; the Central Force, the Ruler, the Controlling Power of all the diabolism running riot over the face of the planet. It was roughly circular, large and ponderous. It was bewilderingly

complicated, a maze of gears, wheels, switchboards, lights, levers, buttons, tubing, and intricacies beyond my comprehension. There were circular tiers, and on each tier smaller separate units moved, performing various tasks, attending switchboards, pressing buttons, pulling levers. The result was a throbbing, rhythmic, purposeful unit. I could imagine invisible waves going out in every direction.

I wondered what part of this great machine was vulnerable. Silly thought. No part. Only it—itself. It was The Brain.

The Brain. The Intelligence. I had searched for, and I had found it. There it was before me. Well, I was going to smash it. I looked around for some kind of weapon, but finding none, I strode forward bare-handed.

Immediately a square panel lighted up with a green glow, and I knew that The Brain was aware of my intent. I stopped. An odd sensation swept over me, a feeling of *hate*, of *menace*. It came from the machine, pervaded the air in invisible waves.

"Nonsense," I thought; "it is but a machine after all. A very complicated one, yes, perhaps even possessed of intelligence; but it only has control over other machines, it cannot harm me." Again I took a resolute step forward.

The feeling of menace became stronger, but I fought back my apprehension and advanced recklessly. I had almost reached the machine when a wall of crackling blue flame leaped from floor to roof. If I had taken one more step I would have been caught in it.

The menace, and hate, and imagined rage at my escape, rolled out from the machine in ponderous, almost tangible waves, engulfing me, and I retreated hastily.

I walked back toward the mountains. After all, this was not *my* world—not my universe. I would soon be so small that my presence amid the machines would be extremely dangerous, and the tops of the mountains was the only safe place. I would have liked to smash the Brain and put an end to it all, but anyway, I thought, the bird people were now safe on the satellite, so why not leave this lifeless world to the machines.

It was twilight when I reached the mountains, and from a high grassy slope—the only peaceful place on the entire planet, I imagined—I looked out upon the plain. Tiny lights appeared as the machines moved about, carrying on their work, never resting. The clattering and clanking of them floated faintly up to me and made me glad that I was a safe distance from it all.

As I stood out toward the dome that housed the Brain, I saw what I had failed to see before. A large globe rested there on a frame-work, and there seemed to be unusual activity around it.

A vague apprehension tightened around my brain as I saw machines enter this globe, and I was half prepared for what happened next. The globe rose lightly as a feather, sped upward with increasing speed, out of the atmosphere and into space, where, as a tiny speck, it darted and maneuvered with perfect ease. Soon it reappeared, floated gracefully down upon the framework again, and the machines that had mechanically directed its flight disembarked from it.

The machines had achieved space travel! My heart sickened with sudden realization of what that meant. They would build others—were already building them. They would go

to other worlds, and the nearest one was the satellite encased in its protective metal shell

But then I thought of the white-flame machines that I had seen cut through stone and metal in a few seconds

The bird people would no doubt put up a valiant fight. But as I compared their rocket projectiles against the efficiency of the globe I had just seen, I had little doubt as to the outcome. They would eventually be driven out into space again to seek a new world, and the machines would take over the satellite, running riot as they had done here. They would remain there just as long as the Brain so desired, or until there was no more land for conquest. Already this planet was over-run, so they were preparing to leave.

THE brain. An intricate, intelligent mechanical brain, glorying in its power, drunk with conquest. Where had it originated? The bird people must have been the indirect cause, and no doubt they were beginning to realize the terrible menace they had loosed on the universe.

I tried to picture their civilization as it had been long ago before this thing had come about. I pictured a civilization in which machinery played a very important part. I pictured the development of this machinery until the time when it relieved them of many tasks. I imagined how they must have designed their machines with more and more intricacy, more and more finesse, until only a few persons were needed in control. And then the great day would come, the supreme day, when mechanical parts would take the place of those few.

That must have indeed been a day

of triumph. Machines supplying their every necessity, attending to their every want, obeying their every whim at the touch of a button. That must have been Utopia achieved!

But it had proven to be a bitter Utopia. They had gone forward blindly and recklessly to achieve it, and unknowingly they had gone a step too far. Somewhere, amid the machines they supposed they had under their control, they were imbued with a spark of intelligence. One of the machines added unto itself—perhaps secretly; built and evolved itself into a terribly efficient unit of inspired intelligence. And guided by that intelligence, other machines were built and came under its control. The rest must have been a matter of course. Revolt and easy victory.

So I pictured the evolution of the mechanical brain that even now was directing activities from down there under its metal dome.

And the metal shell around the satellite—did not that mean that the bird people were *expecting* an invasion? Perhaps, after all, this was not the original planet of the bird people; perhaps space travel was not an innovation among the machines. Perhaps it was on one of the far inner planets near the sun that the bird people had achieved the Utopia that proved to be such a terrible nemesis; perhaps they had moved to the next planet, never dreaming that the machines could follow; but the machines had followed after a number of years, the bird people being always driven outward, the machines always following at leisure in search of new spheres of conquest. And finally the bird people had fled to this planet, and from it to the satellite; and realizing that in a few years the machines would come again in all their

invincibility, they had then ensconced themselves beneath the shell of metal.

At any rate: they did not flee to a far-away safe spot in the universe as they could have very easily done. Instead, they stayed; always one sphere ahead of the marauding machines, they must always be planning a means of wiping out the spreading evil they had loosed.

It might be that the shell around the satellite was in some way a clever trap! But so thinking, I remembered again the white-flame machines and the deadly efficiency of the globe I had seen, and then my hopes faded away.

Perhaps some day they would eventually find a way to check the spreading menace. But on the other extreme, the machines might spread out to other solar systems, other galaxies, until some day, a billion years hence, they would occupy every sphere in this universe

Such were my thoughts as I lay prone there upon the grassy slope and looked down into the plain, down upon the ceaseless clatter and the ceaseless moving of lights in the dark. I was very small now; soon, very soon, I would leave this world.

My last impression was of a number of the space globes, barely discernible in the dusk below; and among them towering up high and round, was one much larger than the others, and I could guess which machine would occupy that globe.

And my last thought was a regret that I hadn't made a more determined effort to destroy that malicious mechanism, the Brain.

So I passed from this world of machines—the world that was an electron on a grain of sand that existed on a prehistoric world that was but an electron on a microscope-slide that

existed on a world that was but an electron in a piece of Rehyllium-X on the Professor's laboratory table.

CHAPTER VIII

IT is useless to go on. I have neither the time nor the desire to relate in detail all the adventures that have befallen me, the universes I have passed into, the things I have seen and experienced and learned on all the worlds since I left the planet of the machines.

Ever smaller cycles infinite universes never ending each presenting something new some queer variation of life or intelligence Life? Intelligence? Terms I once associated with things animate, things protoplasmic and understandable. I find it hard to apply them to all the divergencies of shape and form and construction I have encountered

Worlds young warm volcanic and steaming the single cell emerging from the slime of warm oceans to propagate on primordial continents other worlds, innumerable life divergent in all branches from the single cell amorphous globules amphibian crustacean reptilian plant insect bird mammal all possible variations or combinations biological monstrosities indescribable

Other forms beyond any attempt at classification beyond all reason or comprehension of my puny mind essences of pure flame others gaseous, incandescent and quiescent alike plant forms encompassing an entire globe crystalline beings sentient and reasoning great shimmering columnar forms, seemingly liquid, defy-

ing gravity by some strange power of cohesion a world of sound-vibrations, throbbing, expanding, reverberating in unbroken echoes that nearly drove me crazy globular brain-like masses utterly dissociated from any material substance intradimensional beings, all shapes and shapeless entities utterly incapable of registration upon any of my senses except the sixth, that of instinct

Suns dying planets cold and dark and airless last vestiges of once proud races struggling for a few more meagre years of sustenance great cavities beds of evaporated seas small furry animals scurrying to cover at my approach desolation ruins crumbling surely into the sands of barren deserts, the last mute evidence of vanished civilizations

Other worlds a-flourished with life blessed with light and heat staggering cities vast populations ships plying the surface of oceans, and others in the air huge observatories tremendous strides in the sciences

Space flight battles for the supremacy of worlds blasting rays of super-destruction collision of planets disruption of solar systems cosmic annihilation

Light space a universe with a tenuous, filmy something around it, which I burst through all around me not the customary blackness of outer space I had known, but light filled with tiny dots that were globes of darkness that were burnt out suns and lifeless planets nowhere a shimmering planet, nowhere a flaming sun only remote specks of black amid the light-satiated emptiness

HOW many of the infinitely smaller atomic cycles I have passed into, I do not know. I tried to keep count of them at first, but somewhere between twenty and thirty I gave it up; and that was long ago.

Each time I would think: "This cannot go on forever—it *cannot*; surely this next time I must reach the end."

But I have not reached the end.

Good God—how can there be an end? Worlds composed of atoms each atom similarly composed The end would have to be an indestructible solid, and that cannot be; all matter divisible into smaller matter

What keeps me from going insane? I want to go insane!

I am tired a strange tiredness neither of mind nor body. Death would be a welcome release from the endless fate that is mine.

But even death is denied me. I have sought it I have prayed for it and begged for it but it is not to be.

On all the countless worlds I have contacted, the inhabitants were of two distinctions: they were either so low in the state of intelligence that they fled and barricaded themselves against me in superstitious terror—or were so highly intellectual that they recognized me for what I was and welcomed me among them. On all but a few worlds the latter was the case, and it is of these types that I will dwell briefly.

These beings—or shapes or monstrosities or essences—were in every case mentally and scientifically far above me. In most cases they had observed me for years as a dark shadow looming beyond the farthest stars, blotting out certain star-fields and nebulae and always when I came

to their world they welcomed me with scientific enthusiasm.

Always they were puzzled as to my steady shrinking, and always when they learned of my origin and the manner of my being there, they were surprised and excited.

In most cases gratification was apparent when they learned definitely that there were indeed great ultramicrocosmic universes. It seemed that all of them had long held the theory that such was the case.

On most of the worlds, too, the beings—or entities—or whatever the case might be—were surprised that the Professor, one of my fellow creatures, had invented such a marvelous vitalized element as "Shrinx."

"Almost unbelievable," was the general concensus of opinion; "scientifically he must be centuries ahead of the time on his own planet, if we are to judge the majority of the race by this creature here"—meaning me.

In spite of the fact that on nearly every world I was looked upon as mentally inferior, they conversed with me and I with them, by various of their methods, in most cases different variations of telepathy. They learned in minute detail and with much interest all of my past experiences in other universes. They answered all of my questions and explained many things besides, about their own universe and world and civilization and scientific achievements, most of which were completely beyond my comprehension, so alien were they in nature.

And of all the intra-universal beings I have had converse with, the strangest were those essences who dwelt in outer space as well as on various planets; identifiable to me only as vague blots of emptiness, total

absences of light or color or substance; who impressed upon me the fact that they were Pure Intelligences, far above and superior to any material plane; but who professed an interest in me, bearing me with them to various planets, revealing many things and treating me very kindly. During my sojourn with them I learned from experience the total subservience of matter to influences of mind. On a giant mountainous world I stepped out upon a thin beam of light stretched between two crags, and willed with all my consciousness that I would not fall. And I did not.

I have learned many things. I know that my mind is much sharper, more penetrative, more grasping, than ever before. And vast fields of wonder and knowledge lie before me in other universes yet to come.

But in spite of this, I am ready for it all to end. This strange tiredness that is upon me—I cannot understand it. Perhaps some invisible radiation in empty space is satiating me with this tiredness.

Perhaps it is only that I am very lonely. How very far away I am from my own tiny sphere! Millions upon millions trillions upon trillions of light-years Light years! Light cannot measure the distance. And yet it is no distance: I am in a block of metal on the Professor's laboratory table

Yet how far away into space and time I have gone! Years have passed, years far beyond my normal span of life. I am eternal.

Yes, eternal life that men have dreamed of prayed for sought after is mine—and I dream and pray and seek for death!

Death. All the strange beings I have seen and conversed with, have

denied it. I have implored many of them to release me painlessly and for all time—but to no avail. Many of them were possessed of the scientific means to stop my steady shrinkage—but they would not stop it. None of them would hinder me, none of them would tamper with the things that were. Why? Always I asked them why, and they would not answer.

But I need no answer. I think I understand. These beings of science realized that such an entity as myself should never be . . . that I am a blasphemy upon all creation and beyond all reason . . . they realized that eternal life is a terrible thing . . . a thing not to be desired . . . and as punishment for delving into secrets never meant to be revealed, none of them will release me from my fate . . .

Perhaps they are right, but oh, it is cruel! Cruel! The fault is not mine, I am here against my own will.

And so I continue ever down, alone and lonely, yearning for others of my kind. Always hopeful—and always disappointed.

SO it was that I departed from a certain world of highly intelligent gaseous beings; a world that was in itself composed of a highly rarified substance bordering on nebulosity. So it was that I became ever smaller, was lifted up in a whirling, expanding vortex of the dense atmosphere, and entered the universe which it composed.

Why I was attracted by that tiny, far away speck of yellow, I do not know. It was near the center of the nebula I had entered. There were other suns far brighter, far more attractive, very much nearer. This minute yellow sun was dwarfed by other suns and sun-clusters around it—

seemed insignificant and lost among them. And why I was drawn to it, so far away, I cannot explain.

But mere distance, even space distance, was nothing to me now. I had long since learned from the Pure Intelligence the secret of propulsion by mind influence, and by this means I propelled myself through space at any desired speed not exceeding that of light; as my mind was incapable of imagining speed faster than light, I of course could not cause my material body to exceed it.

So I neared the yellow sun in a few minutes, and observed that it had twelve planets. And as I was far too large to yet land on any sphere, I wandered far among other suns, observing the haphazard construction of this universe, but never losing sight of the small yellow sun that had so intrigued me. And at last, much smaller, I returned to it.

And of all the twelve planets, one was particularly attractive to me. It was a tiny blue one. It made not much difference where I landed, so why should I have picked it from among the others? Perhaps only a whim—but I think the true reason was because of its constant pale blue twinkling, as though it were beckoning to me, inviting me to come to it. It was an unexplainable phenomenon; none of the others did that. So I moved closer to the orbit of the blue planet, and landed upon it.

As usual I didn't move from where I stood for a time, until I could view the surrounding terrain; and then I observed that I had landed in a great lake—a chain of lakes. A short distance to my left was a city miles wide, a great part of which was inundated by the flood I had caused.

Very carefully, so as not to cause further tidal waves, I stepped from

the lake to solid ground, and the waters receded somewhat.

Soon I saw a group of five machines flying toward me; each of them had two wings held stiffly at right angles to the body. Looking around me I saw others of these machines winging toward me from every direction, always in groups of five, in V formation. When they had come very close they began to dart and swoop in a most peculiar manner, from them came sharp staccato sounds, and I felt the impact of many tiny pellets upon my skin! These beings were very warlike, I thought, or else very excitable.

Their bombardment continued for some time, and I began to find it most irritating; these tiny pellets could not harm me seriously, could not even pierce my skin, but the impact of them stung. I could not account for their attack upon me, unless it be that they were angry at the flood I had caused by my landing. If that were the case they were very unreasonable, I thought; any damage I had done was purely unintentional, and they should realize that.

But I was soon to learn that these creatures were very foolish in many of their actions and manners; they were to prove puzzling to me in more ways than one.

I waved my arms around, and presently they ceased their futile bombardment, but continued to fly around me.

I wished I could see what manner of beings flew these machines. They were continually landing and rising again from a wide level field below.

For several hours they buzzed all around while I became steadily smaller. Below me I could now see long ribbons of white that I guessed were roads. Along these roads crawled tiny vehicles, which soon became so nu-

merous that all movement came to a standstill, so congested were they. In the fields a large part of the populace had gathered, and was being constantly augmented by others.

At last I was sufficiently small so that I could make out closer details, and I looked more intently at the beings who inhabited this world. My heart gave a quick leap then, for they somewhat resembled myself in structure. They were four-limbed and stood erect, their method of locomotion consisting of short jerky hops, very different from the smooth gliding movement of my own race. Their general features were somewhat different too—seemed grotesque to me—but the only main difference between them and myself was that their bodies were somewhat more columnar, roughly oval in shape and very thin, I would say almost frail.

Among the thousands gathered there were perhaps a score who seemed in authority. They rode upon the backs of clumsy looking, four-footed animals, and seemed to have difficulty in keeping the excited crowd under control. I, of course, was the center of their excitement; my presence seemed to have caused more consternation here than upon any other world.

Eventually a way was made through the crowd and one of the ponderous four wheeled vehicles was brought along the road opposite to where I stood. I supposed they wanted me to enter the rough box-like affair, so I did so, and was hauled with many bumps and jolts over the rough road toward the city I had seen to the left. I could have rebelled at this barbarous treatment, but I reflected that I was still very large and this was probably the only way they,

had of transporting me to wherever I was going.

It had become quite dark, and the city was aglow with thousands of lights. I was taken into a certain building, and at once many important looking persons came to observe me.

I have stated that my mind had become much more penetrative than ever before, so I was not surprised to learn that I could read many of the thoughts of these persons without much difficulty. I learned that these were scientists who had come here from other immediate cities as quickly as possible—most of them in the winged machines, which they called "planes"—when they had learned of my landing here. For many months they had been certain that I would land. They had observed me through their telescopes, and their period of waiting had been a speculative one. And I could now see that they were greatly puzzled, filled with much wonderment, and no more enlightenment about me than they had been possessed of before.

Though still very large, I was becoming surely smaller, and it was this aspect that puzzled them most, just as it had on all the other worlds. Secondly in their speculations was the matter of *where* I had come from.

Many were the theories that passed among them. Certain they were that I had come a far distance. Uranus? Neptune? Pluto? I learned that these were the names of the outmost planets of this system. No, they decided; I must have come a much farther distance than that. Perhaps from another far-away galaxy of this universe! Their minds were staggered at that thought. Yet how very far away they were from the truth.

They addressed me in their own

language, and seemed to realize that it was futile. Although I understood everything they said and everything that was in their minds, they could not know that I did, for I could not answer them. Their minds seemed utterly closed to all my attempts at thought communication, so I gave it up.

They conversed then among themselves, and I could read the hopelessness in their minds. I could see, too, as they discussed me, that they looked upon me as being abhorrent, a monstrosity. And as I searched the recesses of their minds, I found many things.

I found that it was the inherent instinct of this race to look upon all unnatural occurrences and phenomena with suspicion and disbelief and prejudiced mind.

I found that they had great pride for their accomplishments in the way of scientific and inventive progress. Their astronomers had delved a short distance into outer space, but considered it a very great distance; and having failed to find signs of intelligent life upon any immediate sphere, they leaped blindly and fondly to the conclusion that their own species of life was the dominant one in this solar system and perhaps—it was reluctant perhaps—in the entire universe.

Their conception of a universe was a puny one. True, at the present time there was extant a theory of an expanding universe, and in that theory at least they were correct, I knew, remembering the former world I had left—the swirling, expanding wisp of gaseous atmosphere of which this tiny blue sphere was an electron. Yes, their "expanding universe" theory was indeed correct. But very few of their thinkers went beyond their own

immediate universe—went deeply enough to even remotely glimpse the vast truth.

They had vast cities, yes. I had seen many of them from my height as I towered above their world. A great civilization, I had thought then. But now I know that great cities do not make great civilizations. I am disappointed at what I have found here, and cannot even understand why I should be disappointed, for this blue sphere is nothing to me and soon I will be gone on my eternal journey downward

Many things I read in these scientists' minds—things clear and concise, things dim and remote; but they would never know.

And then in the mind of one of the persons, I read an idea. He went away, and returned shortly with an apparatus consisting of wires, a head- phone, and a flat revolving disc. He spoke into an instrument, a sort of amplifier. Then a few minutes later he touched a sharp pointed instrument to the rotating disc, and I heard the identical sounds reproduced which he had spoken. A very crude method, but effective in a certain way. They wanted to register my speech so that they would have at least something to work on when I had gone.

I tried to speak some of my old language into the instrument. I had thought I was beyond all surprises, but I was surprised at what happened. For nothing happened. I could not speak. Neither in the old familiar language I had known so long ago, nor in any other kind of sound. I had communicated so entirely by thought transference on so many of the other worlds, that now my power of vocal utterance was gone.

They were disappointed. I was not sorry, for they could not have de-

ciphered any language so utterly alien as mine was.

Then they resorted to the mathematics by which this universe and all universes are controlled; into which mathematical mold the eternal All was cast at the beginning and has moved errorlessly since. They produced a great chart which showed the conglomerated masses of this and other galaxies. Then upon a black panel set in the wall, was drawn a circle—understandable in any universe—and around it ten smaller circles. This was evidently their solar system, though I could not understand why they drew but ten circles when I had seen twelve planets from outer space. Then a tiny spot was designated on the chart, the position of this system in its particular galaxy. Then they handed the chart to me.

It was useless. Utterly impossible. How could I ever indicate my own universe, much less my galaxy and solar system, by such puny methods as these? How could I make them know that my own universe and planet were so infinitely large in the scheme of things that *theirs* were practically non-existent? How could I make them know that their universe was not *outside* my own, but *on my planet*?—superimposed in a block of metal on a laboratory table, in a grain of sand, in the atoms of glass in a microscopic slide, in a drop of water, in a blade of grass, in a bit of cold flame, in a thousand other variations of elements and substances all of which I had passed down into and beyond, and finally in a wisp of gas that was the cause of their “expanding universe.” Even could I have conversed with them in their own language I could not have made them grasp the vastness of all those substances existing on worlds each of

which was but an electron of an atom in one of trillions upon trillions of molecules of an infinitely larger world! Such a conception would have shattered their minds.

It was very evident that they would never be able to establish communication with me even remotely, nor I with them; and I was becoming very impatient. I wanted to be out of the stifling building, out under the night sky, free and unhampered in the vast space which was my abode.

Upon seeing that I made no move to indicate on the chart which part of their puny universe I came from, the scientists around me again conversed among themselves; and this time I was amazed at the trend of their thoughts.

For the conclusion, which they had reached, was that I was some freak of outer space which had somehow wandered here, and that my place in the scale of evolution was too far below their own for them to establish ideas with me either by spoken language (of which they concluded I had none) or by signs (which I was apparently too barbaric to understand)!! This—this was their unanimous conclusion! This, because I had not uttered any language for them to record, and because the chart of their universe was utterly insignificant to me! Never did it occur to them that the opposite might be true—that I might converse with them but for the fact that their minds were too weak to register my thoughts!

Disgust was my reaction to these short-sighted conclusions of their unimaginable minds—disgust which gave way to an old emotion, that of anger.

And as that one impulsive, rising burst of anger flooded my mind, a strange thing happened:

Every one of the scientists before me dropped to the floor in a state of unconsciousness.

MY mind had, indeed, become much more penetrative than ever before. No doubt my surge of anger had sent out intangible waves which had struck upon their centers of consciousness with sufficient force to render them insensible.

I was glad to be done with them. I left the four walls of the building, emerged into the glorious expansive night under the stars and set out along the street in a direction that I believed would lead me away from the city. I wanted to get away from it, away from this world and the people who inhabited it.

As I advanced along the streets all who saw me recognized me at once and most of them fled unreasonably for safety. A group of persons in one of the vehicles tried to bar my progress, but I exercised my power of anger upon them; they drooped senselessly and their vehicle crashed into a building and was demolished.

In a few minutes the city was behind me and I was striding down one of the roads, destination unknown; nor did it matter, except that now I was free and alone as it should be. I had but a few more hours on this world.

And then it was that the *feeling* came upon me again, the strange feeling that I had experienced twice before: once when I had selected the tiny orange sun from among the millions of others, and again when I had chosen this tiny blue planet. Now I felt it for the third time, more strongly than ever, and now I knew that this feeling had some very definite purpose for being. It was as though something, some power be-

yond question, drew me irresistibly to it; I could not resist, nor did I want to. This time it was very strong and very near.

Peering into the darkness along the road, I saw a light some distance ahead and to the left, and I knew that I must go to that light.

When I had come nearer I could see that it emanated from a house set far back in a grove of trees, and I approached it without hesitation. The night was warm, and a pair of double windows opened upon a well-lighted room. In this room was a man.

I stepped inside and stood motionless, not yet knowing why I should have been drawn there.

The man's back was toward me. He was seated before a square dialed instrument, and seemed to be listening intently to some report coming from it. The sounds from the box were unintelligible to me, so I turned my attention to reading the man's mind as he listened, and was not surprised to learn that the reports concerned myself.

"—casualties somewhat exaggerated, though the property damage has reached millions of dollars," came the news from the box. "Cleveland was of course hardest hit, though not unexpectedly, astronomical computators having estimated with fair accuracy the radius of danger. The creature landed in Lake Erie only a few miles east of the city. At the contact the waters rose over the breakwater with a rush and inundated nearly one-third of the city before receding, and it was well that the greater part of the populace had heeded the advance warnings and fled . . . all lake towns in the vicinity have reported heavy property damage, and cities as far east as Erie, and as far west as Toledo have reported high flood waters

. . . . all available Government combat planes were rushed to the scene in case the creature should show signs of hostility scientific men who have awaited the thing's landing for months immediately chartered planes for Cleveland despite the elaborate cordons of police and militiamen, the crowds broke through and entered the area, and within an hour after the landing roads in every direction were congested with traffic . . . for several hours scientists circled and examined the creature in planes, while its unbelievable shrinkage continued the only report we have from them is that, aside from the contour of its great bell-shaped torso, the creature is quite amazingly correct anatomically an unofficial statement from Dr. Hilton U. Cogsworthy of the Alleghany Biological Society, is to the effect that such a creature *isn't*. That it cannot possibly exist. That the whole thing is the result of some kind of mass hypnotism on a gigantic scale. This, of course, in lieu of some reasonable explanation . . . many persons would like to believe the "mass hypnotism" theory, and many always will; but those who have seen it and taken photographs of it from every angle know that it does exist and that its steady shrinking goes on Professor James L. Harvey of Miami University has suffered a stroke of temporary insanity and is under the care of physicians. The habitual curiosity seekers who flocked to the scene are apparently more hardened the latest report is that the creature, still very large, has been transported under heavy guard to the Cleveland Institute of Scientific Research, where is gathered every scientist of note east of the Mississippi stand by for further news flashes"

The voice from the box ceased, and as I continued to read the mind of the man whose back was toward me, I saw that he was deeply absorbed in the news he had heard. And the mind of this person was something of a puzzle to me. He was above the average intelligence of those on this world, and was possessed of a certain amount of fundamental scientific knowledge; but I could see immediately that his was not a scientifically trained mind. By profession he was a writer—one who recorded fictitious "happenings" in the written language, so that others might absorb and enjoy them.

And as I probed into his mind I was amazed at the depth of imagination there, a trait almost wholly lacking in those others I had encountered, the scientists. And I knew that at last here was one with whose mind I might contact . . . here was one who was different from the others . . . who went deeper . . . who seemed on the very edge of the truth. Here was one who thought: "—this strange creature, which has landed here . . . alien to anything we have ever known . . . might it not be alien even to our universe? . . . the strange shrinking . . . from that phenomenon alone we might conclude that it has come an inconceivable distance . . . its shrinking may have begun hundreds, thousands of years ago . . . and if we could but communicate with it, before it passes from Earth forever, what strange things might it not tell us!"

The voice came from the box again, interrupting these thoughts in his mind.

"Attention! Flash! The report comes that the alien space-creature, which was taken to the Scientific Research Institute for observation by

scientists, has escaped, after projecting a kind of invisible mind force which rendered unconscious all those within reach. The creature was reported seen by a number of persons, after it left the building. A police squad car was wrecked as a direct result of the creature's "mind force," and three policemen were injured, none seriously. It was last seen leaving the city by the north-east, and all persons are ordered to be on the lookout and to report immediately if it is sighted."

AGAIN the report from the box ceased, and again I probed into the man's mind, this time deeper, hoping to establish a contact with it which would allow for thought-communication.

I must have at least aroused some hidden mind-instinct, for he whirled to face me, overturning his chair. Surprise was on his face, and something in his eyes that must have been fear.

"Do not be alarmed," I flashed. "Be seated again."

I could see that his mind had not received my thought. But he must have known from my manner that I meant no harm, for he resumed his seat. I advanced further into the room, standing before him. The fear had gone out of his eyes and he only sat tensely staring at me, his hands gripping the arms of the chair.

"I know that you would like to learn things about myself," I telepathed; "things which those others—your scientists—would have liked to know."

Reading his mind I could see that he had not received the thought, so I probed even deeper and again flashed the same thought. This time he did receive it, and there was an answering light in his eyes.

He said "Yes," aloud.

"Those others, your scientists," I went on, "would never have believed nor even understood my story, even if their minds were of the type to receive my thoughts, which they are not."

He received and comprehended that thought, too, but I could see that this was a great strain on his mind and could not go on for long.

"Yours is the only mind I have encountered here with which I could establish thought," I continued, "but even now it is becoming weakened under the unaccustomed strain. I wish to leave my record and story with you, but it cannot be by this means, I can put your mind under a hypnotic influence and impress my thoughts upon your subconscious mind, if you have some means of recording them. But you must hurry; I have only a few more hours here at the most, and in your entire lifetime it would be impossible for you to record all that I could tell."

I could read doubt in his mind. But only for one instant did he hesitate. Then he rose and went to a table where there was a pile of smooth white paper and a sharp pointed instrument—pen—for recording my thoughts in words of his own language.

"I am ready," was the thought in his mind.

* * * * *

SO I have told my story. Why? I do not know, except that I wanted to. Of all the universes I have passed into, only on this blue sphere have I found creatures even remotely resembling myself. And they are a disappointment; and now I know that I shall never find others of my kind. Never, unless—

I have a theory. Where is the beginning or the end of the eternal All I have been traversing? Suppose there is none? Suppose that, after traversing a few more atomic cycles, I should enter a universe which seemed somehow familiar to me; and that I should enter a certain familiar galaxy, and approach a certain sun, a certain planet—and find that I was back where I started from so long ago: back on my own planet, where I should find the Professor in the laboratory still receiving my sound and sight impressions!! An insane theory; an impossible one. It shall never be.

Well, then, suppose that after leaving this sphere—after descending into another atomic universe—I should choose *not to alight on any planet?* Suppose I should remain in empty space, my size constantly diminishing? That would be one way of ending it all, I suppose. Or would it? Is not my body matter, and is not matter infinite, limitless, eternal? How then could I ever reach a "nothingness?" It is hopeless. I am eternal. My mind too must be eternal or it would surely have snapped long ago at such concepts.

I am so very small that my mind is losing contact with the mind of him who sits here before me writing these thoughts in words of his own language, though his mind is under the hypnotic spell of my own and he is oblivious to the words he writes. I have clambered upon the top of the table beside the pile of pages he has written, to bring my mind closer to his. But why should I want to continue the thought-contact for another instant? My story is finished, there is nothing more to tell.

I shall never find others of my kind I am alone I think that

soon, in some manner, I shall try to put an end to it . . .

I am very small now . . . the hypnosis is passing from his mind . . . I can no longer control it . . . the thought-contact is slipping . . .

EPILOGUE

NATIONAL PRESS-RADIO SERVICE,
Sept. 29, 1937 (through
Cleveland *Daily Clarion*):

—Exactly one year ago today was a day never to be forgotten in the history of this planet. On that day a strange visitor arrived—and departed.

On September 29, 1936, at 3:31 P.M., that thing from outer space known henceforth only as "The Alien," landed in Lake Erie near Cleveland, causing not so much destruction and terror as great bewilderment and awe, scientists being baffled in their attempts to determine whence it came and the secret of its strange steady shrinking.

Now, on the anniversary of that memorable day, we are presenting to the public a most unusual and interesting document purported to be a true account and history of that strange being, The Alien. This document was presented to us only a few days ago by Stanton Cobb Lentz, renowned author of "The Answer To The Ages" and other serious books, as well as of scores of short stories and books of the widely popular type of literature known as science-fiction.

You have read the above document. While our opinion as to its authenticity is frankly skeptical, we shall print Mr. Lentz's comment and let you, the reader, judge for yourself whether the story was related to Mr. Lentz by The Alien in the manner

described, or whether it is only a product of Mr. Lentz's most fertile imagination.

"On the afternoon of September 29 a year ago," states Mr. Lentz, "I fled the city as did many others, heading the warning of a possible tidal wave, should The Alien land in the lake. Thousands of persons had gathered five or six miles to the south, and from there we watched the huge shape overhead, so expansive that it blotted out the sunlight and plunged that section of the country into a partial eclipse. It seemed to draw nearer by slow degrees until, about 3:30 o'clock, it began its downward rush. The sound of contact as it struck the lake was audible for miles, but it was not until later that we learned the extent of the flood. After the landing all was confusion and excitement as combat planes arrived and very foolishly began to bombard the creature and crowds began to advance upon the scene. The entire countryside being in such crowded turmoil, it took me several difficult hours to return to my home. There I listened to the varied reports of the happenings of the past several hours.

"When I had that strange feeling that someone was behind me, and when I whirled to see The Alien standing there in the room, I do not presume to say that I was not scared. I was. I was very much scared. I had seen The Alien when it was five or six hundred feet tall—but that had been from afar. Now it was only ten or eleven feet tall, but was standing right before me. But my scaredness was only momentary, for something seemed to enter and calm my mind.

"Then, although there was no audible sound, I became aware of the thought: 'I know that you would like to learn things about myself, things

which those others—your scientists—would have liked to know.'

"This was mental telepathy! I had often used the theory in my stories, but never had I dreamed that I would experience such a medium of thought in real fact. But here it was.

"Those others, your scientists,' came the next thought, 'would never have believed nor even understood my story, even if their minds were of the type to receive my thoughts, which they are not.' And then I began to feel a strain upon my mind, and knew that I could not stand much more of it.

"Then came the thought that he would relate his story through my sub-conscious mind if I had some means of recording it in my own language. For an instant I hesitated; and then I realized that time was fleeing and never again would I have such an opportunity as this. I went to my desk, where only that morning I had been working on a manuscript. There was paper and ink in plenty.

"My last impression was of some force seeming to spread over my mind; then a terrific dizziness, and the ceiling seemed to crash upon me.

"No time at all had seemed to elapse, when my mind regained its normal faculties; but before me on the desk was a pile of manuscript paper closely written in my own long-hand. And—what many persons will find it hard to believe—standing upon that pile of written paper upon my desk **top**, was The Alien—now scarcely two inches in height—and steadily and surely diminishing! In utter fascination I watched the transformation that was taking place before my eyes—watched until The Alien had become entirely invisible, had descended down into the topmost sheet of paper there on my desk

"Now I realize that the foregoing document and my explanation of it will be received in many ways. I have waited a full year before making it public. Accept it now as fiction if you wish. There may be some few who will see the truth of it, or at least the possibility; but the vast majority will leap at once to the conclusion that the whole thing is a concoction of my own imagination: that, taking advantage of The Alien's landing on this planet, I wrote the story to fit the occasion, very appropriately using The Alien as the main theme. To many this will seem all the more to be true, in face of the fact that in most of my science-fiction stories I have poked ridicule and derision and satire at mankind and all its high vaunted science and civilization and achievements—always more or less with my tongue in my cheek however, as the expression has it. And then along comes this Alien, takes a look at us and concludes that he is very disappointed, not to mention disgusted.

"However, I wish to present a few facts to help substantiate the authenticity of the script. Firstly: for some time after awakening from my hypnosis I was beset by a curious dizziness, though my mind was quite clear. Shortly after The Alien had disappeared I called my physician, Dr. C. M. Rollins. After an examination and a few mental tests he was greatly puzzled. He could not diagnose my case; my dizziness was the after effect of a hypnosis of a type he had never before encountered. I offered no explanation except to say that I had not been feeling well for the past several days.

"Secondly: the muscles of my right hand were so cramped from the long period of steady writing that I could not open my fingers. As an explana-

tion I said that I had been writing for hours on the final chapters of my latest book, and Dr. Rollins said: 'Man, you must be crazy.' The process of relaxing the muscles was painful.

"Upon my request Dr. Rollins will vouch for the truth of the above statements.

"Thirdly: when I read the manuscript the writing was easily recognizable as my own free, swinging longhand up to the last few paragraphs, when the writing became shaky, the last few words terminating in an almost undecipherable scrawl as the Alien's contact with my mind slipped away.

"Fourthly: I presented the manuscript to Mr. Howard A. Byerson, fiction editor of the National Newspaper Syndicate Service, and at once he misunderstood the entire idea. 'I have read your story, Mr. Lentz,' he said a few days later, 'and it certainly comes at an appropriate time, right on the anniversary of The Alien's landing. A neat idea about the origin of The Alien, but a bit far fetched. Now, let's see, about the price; of course we shall syndicate your story through our National Newspaper chain, and—'

"You have the wrong idea,' I said.

'It is not a story, but a true history of The Alien as related to me by The Alien, and I wish that fact emphasized; if necessary I will write a letter of explanation to be published with the manuscript. And I am not selling you the publication rights, I am merely giving you the document as the quickest and surest way of presenting it to the public.'

"But surely you are not serious? An appropriate story by Stanton Cobb Lentz, on the eve of the anniversary of The Alien's landing, is a scoop; and you—'

"I do not ask and will not take a cent for the document," I said; 'you have it now, it is yours, so do with it as you see fit.'

"A memory that will live with me always is the sight of The Alien as last seen by me—as last seen on this earth—as it disappeared into infinite smallness there upon my desk—waving two arms upward as if in farewell

"And whether the above true account and history of The Alien be received as such, or as fiction, there can be no doubt that on a not far off September, a thing from some infinite sphere above landed on this earth—and departed."

THE END

*The Odds Are
Against You*



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PROBAK JUNIOR

Subconscious

By JOHN RUSSELL FEARN

We are to be taken millions of miles away from the earth that we know so well, are to get the story of the transactions on a distant planet, with a reference to some mysterious celestial phenomena and a stroke of lightning that played an all important part in the story.

CHAPTER I

MOORE HOLMES was an Englishman, born and bred in Surrey, and, apart from attaining a scholarship that had led to his position as science-master in Godalming College at the age of twenty-three, he had done nothing to greatly distinguish himself.

A pleasant fellow, Moore Holmes—fair, blue-eyed and interesting. By no means a gripping personality, but possessing withal a certain charm. He had planned that his life should be devoted to his career, but the arrival of chestnut-haired Una Lanister, and a violent summer thunderstorm, brought about at least two remarkable diversions in his well-ordered plans.

Late one summer evening in July 1937, Moore and Una could have been seen walking hurriedly along a Godalming country lane, hoping to escape the threatened downpour from the inky clouds above. They shouted advice to each other, to find their words drowned by the thunder that crashed overhead. The college loomed up in the distance and Moore began to speak, but hardly had he started than a blinding flash of forked lightning stabbed down directly in front of him. He stumbled and fell, conscious of a

tearing pain in his left arm as he did so.

Not a second later followed the ear-shattering concussion of a heavy thunder-clap, rolling in tumbling peals to the horizon.

"Moore! Hurry up!" Una panted. "We'll get drenched"

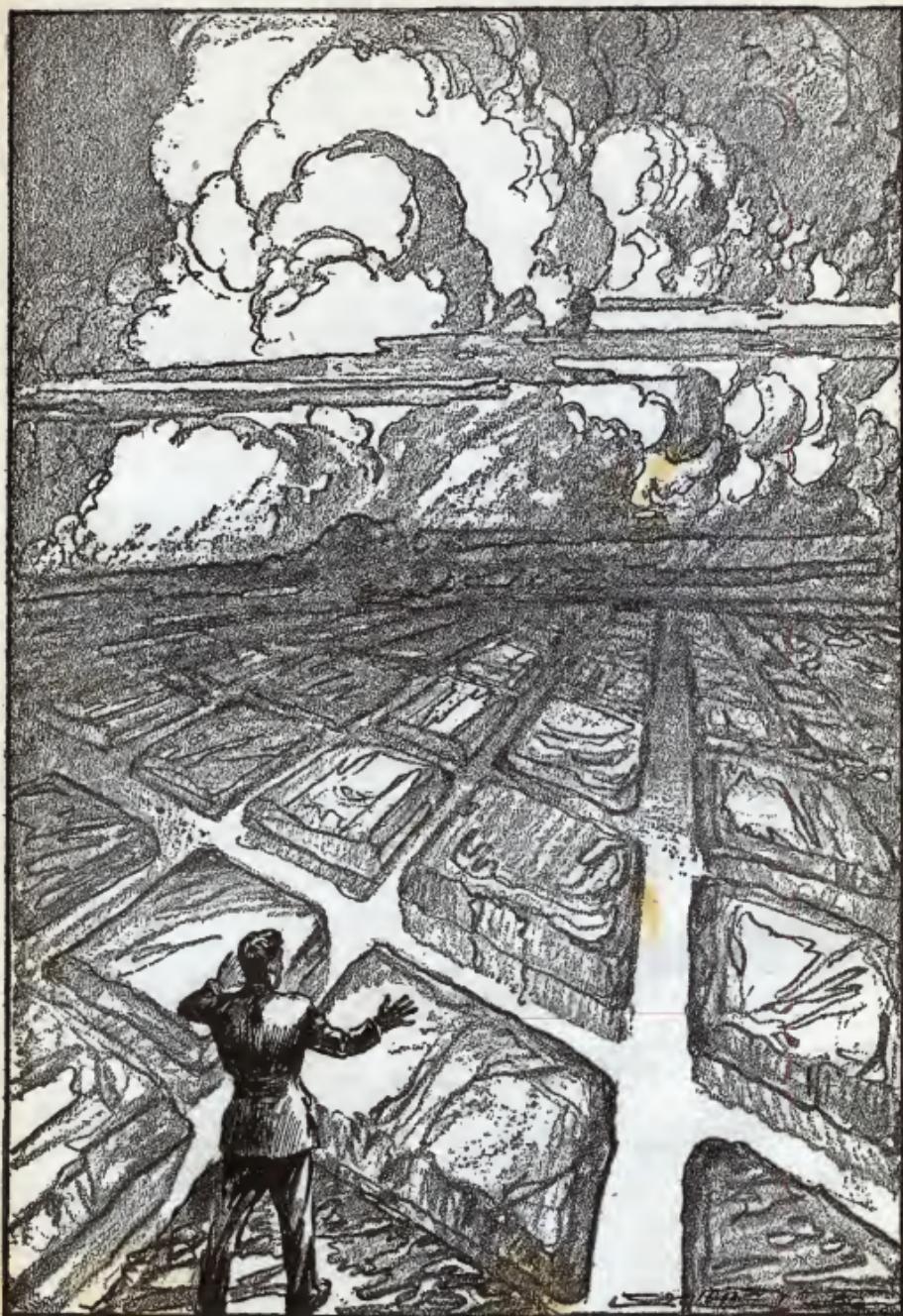
She turned back to where the young man was lying most unpicturesquely in the mud and shook him by the shoulder.

" and our race must advance, Olania, no matter what happens," Moore murmured, his eyes closed and face up to the pouring rain; then he began to struggle feebly and opened his eyes with a start. Instantly his hand went to his blistered arm and torn coat sleeve.

"Moore! What's the matter?" Una demanded in his ear. "Who is Olania?"

Moore did not answer that question. Slowly he rose to his feet, rubbing his arm and forehead by turns and gazing around him as though in a daze. Presently he seemed to become aware of the solicitous girl by his side.

"Nothing—just a delusion," he said ambiguously. "Come on; let's get to the college. In case you don't know it I've been struck by lightning. My head's singing like a kettle even yet,



Every time he blinked he caught evanescent glimpses of strange buildings, complex cities, and once a desert of sand with mighty, flawlessly-straight waterways criss-crossing its burning vastness . . .

and my arm's burned to blazes Let's move."

At that the girl became more attentive. "You'd better see Dr. Mason, the school doctor. I'll come along with you, if you like."

"There's no need, really. Let me see you home first—"

"Not until we've found out how much you're hurt," she answered purposefully, and nothing could change her decision. That being so, they set off through the downpour towards the bulk of the college perhaps half a mile away. Fortunately, despite the nearness and vividity of the lightning, Moore was not struck again, and some twenty minutes later, sodden and mud-bespattered, the two crawled into the school, Moore still holding his arm painfully. Under the girl's care, he made his way into the surgery of the school doctor, Doctor Mason.

He seemed much puzzled by his diagnosis of the lightning-stricken young man, and turned to the waiting, saturated girl with a baffled light in his eyes.

"The flash has done no real harm," he commented. "True it has caused a bad burn, but bandages and ointment will soon heal that. What I cannot understand are these strange delusions about which he keeps talking. Listen to him now!"

" . . . there is not the slightest reason to suppose but what we shall be successful," Moore murmured, eyes closed, and sitting slumped forward in the Doctor's arm chair. "I have a strange feeling, Olania, that something has happened to alter the normal way of things. A change"

Moore's words trailed off into inaudible muttering; then he suddenly opened his eyes again to find the doctor looking down in puzzlement upon him.

"Doctor, you don't think his brain is affected, do you?" Una asked anxiously. "He isn't mentally unbalanced, or anything?"

It was clear the doctor was completely astounded. "Frankly, Miss Lanister, I do not know what on earth is the matter with him!" he confessed. "My examination shows that he is quite normal, save for the burned arm and very slight shock. And yet—Moore, how do you feel?" he asked directly, at which the young science-master rose into a sitting position.

"Not bad," he grunted. "My head still aches, and I think I've been dreaming, or something. I've seen strange, queer-looking people and talked with them. *I don't know!* It's all jumbled—confused!"

"You said something strange a moment ago—a long sentence," Mason remarked. "Can you recall it?"

Moore pondered and finally shook his head. "Oh, be hanged to it, Doc. Only a dream, that's all. I'll be all right. Here, bandage up this arm of mine will you?"

Mason nodded and quietly set about the task.

As he worked he talked.

"If you're troubled by anything curious, Moore—find your mind in any way confused do not hesitate to let me know. Only time can show how the lightning has affected you. It plays queer freaks, you know. Some people have developed sixth sense and X-ray eye-sight by being struck by lightning."

Moore smiled faintly. "Don't worry, Doc—nothing so useful has happened to me! Still, if anything does go wrong I'll look in on you, of course. Ah, that's better!" He surveyed his bandaged arm in satisfaction and drew on his coat again. "Thanks, Doc Now Una, I insist on see-

ing you home. The storm seems to have cleared."

"But are you fit?" she asked anxiously.

"Of course I am! Now come on, before you catch cold"

UPON his return to the college, after he had taken leave of Una until the following evening, Moore found on entering his study that his headache had vanished. The discovery pleased him considerably, and to celebrate the fact he ate a more than normal supper to reassure himself there was nothing amiss with his digestive powers.

Towards midnight he retired to his room, and, adopting his usual practice, he switched on the electric light and then threw himself full length on the bed, fully clothed, to pass a few minutes in silent cogitation before the tiresome business of undressing. Lazily he took off his collar and tie, flung them on the dressing table, then, hands behind his head, he closed his eyes to think.

The instant he had closed them, however, he opened them again in sudden fright. For, when his lids were closed there was no darkness! Anything but it! He was gazing into a colossal laboratory, or power-house, the size of which he had never even conceived or dreamt of. Figures, not entirely unearthly, but quite seven feet tall, were moving silently to and fro.

How crystal clear. How perfectly mirrored! As though he were actually present.

"Good God!" he exclaimed, sitting up startled, and looking round the bedroom to assure himself it was as it had ever been. "What on earth's happened to me?"

It was some time before he could

recover from the shock—then, steeling himself, he lay down again and very falteringly closed his eyes once more. Instantly that vision returned, but enormous though the temptation was, he did not reopen his eyes. He lay perfectly still, gazing into the brilliant picture mirrored in his mind.

Without the least effort he could see gigantic electric generators, bridged by triangular stairs of glittering metal, the apexes of these triangles being centered over engine-gangways. Then there were vast banks of levers and meters He could hear nothing, but there hung about all that super-scientific immensity a suggestion of indescribable power; an awesome vision of intellect of superhuman quality, such as he had never thought possible in his entire scientific career, such as it had been.

Then presently something seemed to happen to him. He seemed to slide downwards very softly Although he did not know it, he had fallen dead asleep.

That instant of breaking his contact with mundane things wrought an amazing change. For he was in the power-house. Not in the personage of Moore Holmes, but exactly in counterpart with his neighbors, almost earthly in body and head-development, yet of the remarkable height of seven feet six inches. Quietly he advanced to the nearest creature.

"Well, Zin, is everything progressing satisfactorily?" he enquired, and at that the other creature turned from examining a series of meters, and nodded. He was the possessor of a hard, cruel face and eyes that seemed curiously devoid of sentiment.

"Yes, everything, Master," he returned. "The etheric barrier is working perfectly. It will not be long before we shall be able to reduce earth's

peoples to dust as the planet hurtles along in its orbit. Then we will have a pleasant world—a wonderful world—made so by the fools of Earthlings who have so long laboured to build and progress under our dictates. Amusing, is it not? And you, Laj? How are you progressing?"

"Perfectly," Laj answered calmly. "As the King-Lord, I have little to do but direct operations, but I concur with your views, Zin—the future is indeed full of prospect."

Zin smiled evilly. "You, as King-Lord, are to be envied—" he commenced—and at that juncture Moore Holmes awoke, to find himself on the bed just as he had been, dressed save for collar and tie. The electric light was still on.

Obviously he had slept—but whilst he had slept he had been somebody else! A totally different personality! Apparently even another world altogether! That conception shook him considerably. He clambered from the bed and sorted out a small bottle of brandy from his locker. A stiff dose of the spirit brought some sane reason back to him.

"Etheric barter?" he muttered. "King-Lord? Laj? Zin? What the devil" He gazed at the ceiling contemplatively. "Yes, something's gone wrong with me since that damned lightning! That was no dream; I lived it! *Lived it! I was Laj!* Moore Holmes lost all entity for the time being. Good heavens! What a paradox of psychology!"

With another sudden effort he closed his eyes and found himself walking along a broad white roadway, lined on either side with graceful trees not unlike palms, in the light of a reddish-gold sun. The scene was reminiscently Egyptian, yet equally alien and unearthly. He came present-

ly to facing another creature similar to the others, only less in height and more graceful of contour, attired in flowing robes of white.

No words could be heard, and it occurred to Moore that only during sleep could he hear anything. Otherwise his auditory nerves were keyed to earthly conditions. He opened his eyes again and once more sought the inspiring ceiling.

"A mental enigma," he said obviously enough. "I'm keeping exact time with that individual Laj. When I awoke just now, he must have walked out of the laboratory. I cut association with him. In that time, whilst I got off the bed he walked on to that roadway, and immediately when I closed my eyes I saw everything through his eyes once more! That creature must have been a female . . . Olania! Good Lord, yes! *Olania!* I seem to remember something about that"

The sudden realization that he was living the lives of two people came as a violent shock to the immature Moore Holmes. A glance at his watch assured him it was one o'clock in the small hours—an unpleasant hour, yet, despite it, he did not feel the desire to sleep any further. Indeed, the things he had witnessed and the crystal clear memories he had to dwell upon, had banished all thoughts of slumber from his mind.

"Yes, something has happened!" he declared with conviction, and sought in his mind to find scientific explanations, born of his own essentially meager training. He had no degrees to his name, was not even a B. Sc., but he did know the fundamentals of Einstein's theory and the supposed composition of a fourth dimension.

"Time is a function of that particular Space-Time Continuum in which we happen to find ourselves here and

now, and Time doesn't extend to the fourth dimension. That is the belief of Professor Einstein," he said, to the grey oblong of night-filled window. "And yet, according to pure scientific reasoning, the subconscious in a human being's mind works *outside* the Space-Time Continuum. To the subconscious mind there is neither the barrier of space or time. Why? What the devil is subconscious, anyhow?"

The issue of that question was not altogether clear in the young man's mind—not at twenty three years of age, anyhow. He only knew something had happened defying all the normal laws of human make-up, and, that being so, he put back his collar and tie and digested the matter as he struggled with his stud. Every time he blinked he caught evanescent glimpses of strange buildings, complex cities, and once a desert of sand with mighty, flawlessly-straight waterways criss-crossing its burning vastness

The mental phenomenon was not evaporating, then. He was still linked by some quite inexplicable mental force to that other life, which, before being struck by lightning, he had never even dreamt of.

PRESENTLY, re-dressed, he silently made his way through the dark silences of the sleeping college to the massive front door. In another moment he was outside in the Cloisters beneath the stillness of the stars. There was no moon, but the summer sky had the hazy translucence of light born of heat-mists.

Be it understood that Moore Holmes was no longer frightened—but he did feel that he could grapple with the mystery more satisfactorily out of doors. The cramping four walls of his bedroom lent an added terror

to his strange mental adventures. Here, with only the horizon for limit, he could expand a trifle But, when a man finds himself faced with the terrific problem of deciding the exact functions of the subconscious mind, he is faced at once with something baffling and profound.

And it was as Moore stood in silence, just outside the Cloisters, that he beheld away to the southern horizon something strange and, so far as he knew, unheard of. A mass of nebulous green light, perhaps as large as the moon, and quite distinctly visible. It might have been anything, something quite normal to the cosmos, had there not been attached to it an obvious ray of similar green, that stretched forth into infinity and was finally lost to sight.

Moore stared at it for a long time, then muttered to himself.

"Now what the deuce is that? It's not a nebula; it's being caused by that ray. And where does the ray go to? Hmm, I don't seem able to follow it to the source; it's not being projected from earth, that is certain. From some other planet, perhaps"

That jolted him. The recollection of the words he had heard—the words concerning an etheric barrier and the reduction of earth's peoples to dust. . . . Something caught at his heart. Was that infernal haze an etheric barrier? It did not seem to grow any larger with the passage of minutes—and besides, where was it coming from? Thus was added another mystery to poor Moore's already overburdened mind. He couldn't tackle the problem alone, so not unnaturally his thoughts turned immediately to the one person who had any interest in him—Una Lanister.

Perhaps it was inconsiderate of him, but he turned on the spot and

headed, *via* climbing the school gates, for the moor that led to her home, reached it some twenty minutes later, and hammered violently on the door of the little modern villa. Somewhere the guardian mastiff barked heavily in the night—then Una's father appeared, head and shoulders through the front bedroom window. Being a gentleman farmer of some repute he was more accustomed to giving orders than to taking them.

"Who is it?" he demanded petulantly, peering down at Holmes' dim, upturned face. "What the devil do you want at this ungodly hour?"

"It's me—Moore. Let me in, will you? I've something to tell you."

"Confounded foolery," James Lanister commented gruffly, withdrew his head gingerly, and presently opened the front door. He switched on the light and led the way into the front room, poising his massive figure on the edge of the sofa and regarding the young schoolmaster with duly mature suspicion.

"Well, Moore, what are you doing waking people up at this infernal hour?" he demanded. "You ought to be in bed, young man! I've no patience with this modern stuff!"

Moore was about to reply when Una herself, followed by her mother, entered the room, both with gowns hastily flung about them.

"Why, Moore, whatever is the matter?" Una asked quickly, running forward to him. "Aren't you feeling well? That lightning flash—"

"Oh, it's not that, Una. It's—something else. You see, I—er—I'm *two people*!"

"You're *what*?" demanded James Lanister blankly, standing up with the shock. "That—that isn't holy, young man. It is written that—"

"Be hanged what's written; I'm

telling the truth," Moore retorted curtly. "Listen, Una—perhaps you'll understand . . ." and he swiftly told her of his mental experiences, and his later beholding of the green nebula in the southern sky. "There's something weird about it all, Una—something different! And, if only I could get to the root-cause of my mental trouble, I feel sure something could be done. Believe it or not, the whole earth is in danger—danger from space, from other beings, who live on a planet full of deserts and big cities. Maybe Mars!"

"It is all terribly mysterious," Una agreed thoughtfully, stroking her chin. "You did right though, in coming to us. You're facing a big problem—"

"Perhaps you'd like a cup of tea," Mrs. Lanister suggested, hugging her buxom form. "You look chilled, Moore—upset."

"Oh, there's no need to trouble, Mrs.—" Moore began, but the good woman was firm. She moved away, and stimulating hissings and spurtings from the kitchen proclaimed her nocturnal endeavours. Mr. Lanister tapped his teeth unmusically; Una walked round in circles and continued to stroke her chin. Moore stood silent, his face perplexed.

"What about Doctor Mason at the college?" Una asked presently. "He said if anything went wrong with you, to see him again. He may be able to help you—"

"I never thought of him," Moore admitted. "He might be able to explain matters, but I doubt it. In a way, I'm half frightened of my condition. If I shut my eyes I see through the eyes of somebody else; if I go to sleep I am absorbed into the personality of that person—that creature Laj. And yet, I feel I must go on, for something

is endangering the earth, and by pure chance I've stumbled on it. The lightning did it, that is clear, but—but what *is* the matter with me?" He looked helplessly round him.

"Indigestion," said James Lanister unimaginatively. "Now a good dose of—"

"You go and see the school doctor," affirmed Mrs. Lanister, who had just appeared with a steaming cup of tea. "Una's right. And if anything goes wrong, you can always rely on us to help you."

"Right enough," said Una warmly. "We'll stand by you, Moore."

"Fantastical rubbish!" said her father, pouting with impatience. "A nightmare! Huh! I've no patience with nightmares . . ."

"You've no patience with anything, James; that's what ails you!" his wife retorted curtly. "Keep quiet, or talk sense. It will puzzle you to do either, anyhow."

Moore sat down heavily, oblivious to the bickering—surrounded by perplexities, a girl with keen intelligence and some knowledge of science, and her unimaginative, faintly quarrelsome parents. He wondered how any of them, even Una, could be expected to understand the laws of a Space-Time Continuum, a fourth dimension or a subconscious mind.

Still, the idea of consulting Doctor Mason was a good one. As he drank his tea, Moore decided he would act upon it . . .

CHAPTER II

AFTER morning lessons the following day—lessons that were irksome to the troubled Moore Holmes—he called upon Doctor Mason, and was fortunate in finding him alone at the time.

"Oh, hello Moore!" The doctor's greeting was cordial. "Recovered all right from your lightning stroke? No headache or anything?"

Moore smiled mysteriously. "No—no headache. But, Doc, instead of developing such things as sixth sense, X-ray eyesight, clairvoyance, and other things attributable to being struck by lightning, I've got the most amazing malady of the lot. In brief, I am two different people. I'm a quiet Surrey science-master on earth, and a King-Lord and master scientist on another world—probably Mars—at one and the same time."

That shook even Doctor Mason's habitual calm. He jumped from his swivel chair and advanced to where Moore was standing, his long face earnest and intent.

"You mean—you mean you're suffering from delusions?" he demanded keenly.

"Delusions nothing! I thought so at first, only I've substantiated it." Moore went on to explain his experiences and the discovery of the green nebula. "So, Doc, that unknown green nebula, and the ray reaching from it into infinity, proves indisputably that the etheric barrier, of which I heard, is not a figment. It *does* exist!"

"Ah, but even the nebula could have been a mental figment, Moore!" Mason remarked.

"It could—but it *wasn't*," Moore answered grimly, and with some difficulty withdrew a crumpled morning paper from his pocket. He handed it to the Doctor, motioning to a column rendered conspicuous with blue-pencil marks.

Mason commenced to read aloud.

"Sir Arthur Langworthy, the noted authority on astronomy and psychology, who may be remembered for his discovery of the Triple-X-ray

for investigation of brain troubles, announces that recent astronomical experiments he has conducted reveal the presence, some millions of miles from earth, of a strange and unknown species of atomic disruption. It would appear, he says, that this mass is actually a form of electrified ether, and could certainly arise by no normal celestial means. The attachment of a long ray to the mass leads Sir Arthur to think that creatures of another world, or existing somewhere in the cosmos, are deliberately causing the disturbance. Sir Arthur has not yet been able to determine if earth will ride into this mass during her orbital path, but if she does there is likely to be grave danger. His later findings will be published at the earliest moment."

Mason ceased reading, his eyes showing that he was astounded. Moore smiled faintly.

"That's no delusion, Doc," he said quietly. "In that other life of mine, wherever it is, I'm actually the *cause* of this trouble. But I'm baffled as to know what to do. I can't analyse the subconscious; I haven't the knowledge or experience. I thought you might be able to help me."

Mason spread his hands helplessly. "My dear chap, I'm just a college physician and surgeon; I can't be expected to understand such matters as complex psychology. I know ordinary brain troubles and their remedies, but this is something different. It calls for an expert! Personally, I think the answer is in that newspaper. You ought to see Sir Arthur himself. He's a brain-specialist as well as an astronomer. I'll come along with you; your case is of absorbing interest to me."

"But my work! I can't leave at a moment's notice! What is the High-master going to say?"

"Leave that to me," Mason answered purposefully. "I have decided that you need a change—have been working too hard. Your present mental condition demands the attention of a specialist, and I shall go with you to London. The High-master can't object to that. I'll fix everything, Moore, don't you worry."

"You're a good sort, Doc," Moore returned gratefully. "I can assure you that nobody will be happier than me to get this confounded trouble cleared up . . . I'll let Una know what's happening. She put me up to this in the first place."

It was nearly seven o'clock on the same day when Doctor Mason and Moore reached the Harley Street home of the celebrated Sir Arthur Langworthy. An appointment with him had, of course, been made over the telephone from the college, and a brief outline of Moore's astounding affliction had been more than enough to arouse the great man's curiosity. . . .

USHERED into his private laboratory-surgery by an impassive manservant, Moore and Mason found the psychologist-astronomer putting about amongst his scientific instruments, but he quickly came forward at their entry.

He was a man who immediately commanded interest—tall, massive-shouldered, with a remarkably lean face considering his build, lofty forehead, and a fringe of woolly, white hair around the upper portion of his cranium. His eyes, of a curiously violet shade, surveyed the two in an all-embracing glance.

"So here we have Mr. Holmes, the paradox of mental science?" he asked genially. "Well, well, how interesting! And you, Doctor Mason, suggested the problem might interest me? It

does—most assuredly. But be seated, please . . . That's better! Now, Mr. Holmes, tell me everything."

Moore did so, to the smallest detail, and the expert listened in profound silence, wagging his head now and again and indulging in an occasional soft rubbing together of his skillful hands. When the story was over he stood for a long time with his active hands for once buried in the pockets of his velvet smoking-jacket.

"Amazing!" was his comment. "I begin to feel, Mr. Holmes, that your particular case is going to change all preconceived notions of science on what really constitutes a subconscious state of mind. You say that, in your other life, you distinctly heard the creature Zin imply that Earthlings were nought but the tools of the—er—shall we say, Martians?"

"Just that, sir," Moore assented.

"Clearly then, that proves the subconscious mind is not a haphazard thing—a line of consciousness entirely indeterminable—but something very real, that has been deliberately rendered mystifying that we may not know too much!"

"Good heavens, Sir Arthur, what on earth are you driving at?" Dr. Mason exclaimed. "Are you trying to prove the subconscious mind to be a—a myth?"

"Perhaps I am," the psychologist answered with a little chuckle. "You see, from normal standards the subconscious is explained rather unsatisfactorily. It is believed to be a region into which our experiences sink, and in which they continue to live an attenuated existence until the time when they are recalled into more complete life. Some scientists have likened it to the storeroom of memory, in which experiences are stocked, to be withdrawn when needed. At best this

is distinctly unsatisfactory . . . Proof of the real power of the subconscious mind can be obtained from witnessing the efforts of an expert in clairvoyance or second-sight. Such people are born with more subconscious power than others—for reasons that may be clearer later.

"In your particular case, Mr. Holmes, being struck by lightning caused an unusual brain-transformation to take place. Namely, the region of the subconscious in your brain was suddenly rendered perfectly clear and understandable. And, do you know, I am just beginning to think that that region has been rendered enigmatical and impossible to probe *on purpose!* The strange chance that changed your mind into the state it is, has revealed for the first time what the subconscious really is! Namely, it is a region wherein we are actually attached to another life. Your own experiences alone prove that until you were struck by lightning, you had no conception of any life but your own. But, since then, you have found you can live as somebody else and live all his experiences as well. Briefly then, you have one mind divided between two bodies—each of you are a separate entity, but how the linking of mind comes about we have to still solve."

"But, sir, they spoke English—referred to our world as earth, instead of some name of their own!" Moore protested.

"They only appeared to, my boy," the expert replied quietly. "You undoubtedly must have spoken the particular language peculiar to them, but when you remembered it in the ordinary way, it sounded like English, because it is the only language you know. You would assimilate their foreign language into your own in the waking state."

A silence fell at that—then Dr. Mason spoke.

"Sir Arthur, if this is true—this idea of a double entity as you theorize, might there not be other people on earth similarly affected?"

"If the theory I have in mind is correct, every human being on earth is so affected—every human being in the world **is** entirely at the dictates of another brain somewhere in the cosmos, presumably on Mars. Naturally, we do not know as yet how this miracle of mind-division has been accomplished, but we will try and find out. For the moment we can rest assured that the subconscious region in a man or woman's mind is really the region where he or she is actually another person—but, that other person has deliberately made the subconscious region dark and impenetrable, so that that other life can never be suspected or understood. A sheer accident—a flash of lightning—has broken that effect with Mr. Holmes, and he can see the other life quite clearly. Other people have developed tendencies to second-sight and similar gifts when struck by lightning—but none have had revealed to them the marvels Mr. Holmes has witnessed."

"Come to think of it, that would explain why we dream of places we've never seen, and in them meet people we've never known," Dr. Mason said reflectively. "Just hazy tracings of that other life, to which, if you're right, Sir Arthur, we belong."

"I do not imply we belong there—we are merely controlled from there," the expert amended. "This accident has happened in very opportunely and links up with my later findings on the green nebula, as yet unpublished. In the space of roughly six weeks earth will hurtle straight into that mass. And, spectroscopic and elec-

trical tests have revealed disconcerting facts, which fit in exactly with Mr. Holmes' conversation with the creature Zin."

"The doom of earth?" Moore asked grimly. "That's what you mean, isn't it?"

The psychologist's lean face became troubled. "Not of earth, my boy, but certainly of humanity. Just as humans will raise and fatten cattle, and then kill them off, so, in a different way, have these malignant beings seen fit, through unguessable centuries, to cause Earthlings to build up a perfect world, and then, when comparative perfection is attained, they will wipe Man out of existence. Yes, beyond doubt, the nebula is being controlled by intelligent beings. To explain what will happen, it will be necessary for me to turn to the field of astronomy and electricity For instance, I need hardly state that Man is electrically constituted—built up of molecules and so forth, the basis of which is essentially electrical."

"Quite," said Moore, who knew that much by heart.

"Further, human beings are not composed of exactly the same electrical content as the earth itself—solid buildings, water, and so forth, because to a certain extent human electricity is always changing. State of health and outside influences can be cited as two instances What I wish to impress is that humans are, fundamentally, electrical."

"Yes, but what—" Doctor Mason began, to be waved into silence.

"Now, what we call the inertia of matter, of human beings, is really attributable, of course, to the magnetic field of moving electric charges—**inertia is electrical**. It isn't due to something in matter itself, but to something surrounding it, and that some-

thing, more than probably, can be ascribed to the ether which the electric charge carries with it. Now here is the point. If electric charges are brought very close to each other they interfere with one another—the positive and negative tend to neutralize each other. So far as we know, it isn't possible to bring them into a complete coincidence in us, but these devils who exist in the cosmos will produce that effect in human beings! The etheric electricity they are generating, in the form of a gigantic electric power in the ether, will cause the entire obliteration of human beings, but not of earth, or buildings, or solids, because as I have already said, humans possess a different type of electricity."

"But—but how will humans be destroyed?" Moore demanded.

"I'm coming to it," Sir Arthur responded calmly. "Speaking from the standpoint of natural science, we know that electric charges can be brought very close to each other; hence their inertia is diminished. Two opposing charges at a distance apart will have double the inertia of one. If they are brought very close, the combined inertia will be less than double—indeed, some of their mass will disappear altogether—vanish out of existence. Hence, if actual coincidence is brought about, and these cosmic enemies of ours are seeing to that—it will mean the complete disappearance of every living thing. All human life, anyhow. Now do you see? I found all this out by telescopic and spectroscopical tests on the green nebula, and its effects on the ether in which it lies, but do not ask me to explain how these malignant scientists produce such effects. Their science is something beyond our ken—they control and destroy humans as we do in-

sects. Minds like those will not be easy to fight!"

"To fight!" Moore echoed. "It seems to me they are untouchable!"

"No—not untouchable," Sir Arthur corrected quietly. "Thanks to your peculiar mind alteration, Mr. Holmes, it will be possible to get at these fiends and beat them at their own game. What we have to find out is where they are, how it comes about that they control the subconscious mind, and lastly find a means of stopping their activities. As yet, we are in the dark as to what they are driving at. If only we could find some way of viewing these creatures as clearly as you do! Let me think now"

Sir Arthur turned and commenced to pace the laboratory slowly and pensively, chin on chest. Moore and Doctor Mason waited in strained silence.

"To reproduce my condition, sir, is impossible," Moore said presently. "The only thing we can do, so far as I can see, is for me to go to sleep, take on the entity of the creature Laj, and learn all I can. Steal information, as it were."

The scientist came to a halt. "Yes, maybe you're right," he agreed slowly. "At least, your suggestion will do for the time being until I can think further. You must stay here with me for a while, and Doctor Mason and I will watch over you whilst you sleep, on the off-chance that you may talk. Probably it will be in a strange language; but if not, we'll write down what we hear." He paused and considered. "I'm afraid you are going to find it a very weird experience," he added grimly.

Moore smiled faintly. "That doesn't matter much! After all, I'm a scientist, so I must get accustomed to scientific experiences. Suppose we start tonight—later on? You see, until I am

actually asleep, I am not Laj: it is only when my own mind has ceased for a while to control my body that I become, as it were, part of him."

"Quite so," Sir Arthur nodded. "I will give you a sleeping draft that will make you sleep heavily—then maybe we'll learn something. In the meantime, since you are my guests, please come this way. We will have dinner—a trifle belatedly."

CHAPTER III

IT was exactly eleven o'clock when Moore Holmes, fully clothed, lay down on the bed in the room Sir Arthur had had prepared for him. A sleeping draft rapidly brought the uncontrollable desire for slumber, and upon either side of the bed, anxious and intent, stood Doctor Mason and Sir Arthur himself, both armed with notebooks and pencils.

Moore himself instantly relapsed into that other "self" with which he had already become so cognizant—the "self" of the strange, seven-foot being known as Laj the King-Lord. He found himself in the great laboratory once more, the one he had seen the previous night, but now, owing to the brain influences of Moore, Laj was not entirely himself—not entirely governed by his own tremendous and ruthless brain.

Working by his side was the grim creature known as Zin.

"Six earthly weeks have but to pass, Master, then comes the extermination of the fools we have enslaved," Zin commented presently. "It has been our task to cause other beings to form for us a pleasant planet instead of this dying one of ours—and ere long we shall have succeeded."

Laj nodded slowly. "I wonder if all the other creatures of the cosmos prey

upon each other, as we have done on Earthlings?" he murmured. "In a way it troubles me—this ruthless, cold-blooded control of an innocent race."

Zin was clearly astonished. "For twenty seven cycles you have been our Master—our King-Lord—and now, above all times, you are revealing that obsolete trait, known as sentiment, in your make-up. What is the matter, Master?"

Laj shrugged and rubbed his mighty forehead. "I cannot tell you, Zin. In some odd way I do not altogether feel myself. I am having difficulty in remembering things, too. Somewhere the perfect balance of my brain has been disturbed."

He turned away from the machine before which he had been standing and crossed to the massive window of the place. The view he absorbed was familiar—that of a stupendous city, block upon block, the topmost heights lost in the cloudless, green-blue sky. Infinities of glittering windows, the edifices connected and inter-connected by shining bridges of unthinkable tough metal.

On the ground level were the streets, orderly and precise, along which came and went swiftly designed machines; above the streets and below the bridges were the busy walking ways, crammed with seven-foot creatures, moving to and fro with certainty and purpose.

"The end of our world," Laj said at last, hands clasped behind him. "Six weeks for the earth to become suitable for us; seven weeks and our world dies. Atmosphere machines will have run their life; can no longer be renewed. The last scrap of water gone. Death—infinite and complete."

"Yes, but we will be in space heading for earth," Zin put in, coming up

beside him. "Every living human will be dead, and you will be King-Lord of our new abode, unless anything arises to prevent it."

"Meaning what?" Laj asked coldly, with a half turn of his great head.

Zin spread his hands ingratiatingly. "Nothing, Master. But, even in our ordered lives there are sometimes—accidents."

"Only those you are likely to create!" Laj retorted. "You envy my position, Zin, I know, but do not attempt anything rash. If you do, you know the penalty."

Zin said nothing. His eyes merely seemed to glitter more brightly. In silence he joined his Master in silent speculation, until presently Laj aroused himself to speak again.

"I wonder why Earthlings have never suspected us," he murmured. "Probably because they cannot see or understand us clearly with their silly little telescopes. They have no means of understanding us, like we have them."

"No matter what they discover or what they do, they are compelled to be part of you and Olania," Zin answered grimly. "Do not forget that, from the very first instant that life began to spawn upon that world of earth, we—or rather you—hurled magnetism across the void, magnetism which contained a portion of your brain vibration known as will-power, and so forced the minds of those creatures to become subservient to your own—sending later a second destructive magnetism, which reacted upon their brains and so prevented them realizing that control was taking place."

"Very amusing!" said Laj laconically. "Earthlings, I understand, attribute everything inexplicable in their mental qualities to a subcon-

scious region without explanation, but never realize for a single instant that on this world one man—myself—and one woman—Olania—perpetually keep the myriad masses of earth under control. It is concerning this control that worry has arisen, Zin. For some reason I find that, when I relax my will powers a trifle—an art we long ago cultivated, as you well know—I feel the presence of a somebody, an Earthling, who bears the preposterous name of Moore Holmes."

"Well?" Zin demanded, tight-lipped.

"I feel he may discover something," said the King-Lord gravely, still gazing out of the huge window.

"Needless worry," Zin commented curtly. "How can such a thing be possible? In all the history of Earthlings not one has ever yet discovered that the subconscious is really a name for being controlled by another world—our world of Mars. How are Earthlings to even realize that their progressive inventions—radio, television, flying, and so forth, are all our own discoveries, which by *our* orders—or at least yours—they have similarly discovered, like children being taught by a parent. How in the name of the cosmos can one of them—this—er—Moore Holmes, for instance, possibly discover the truth?"

"I do not know, but it still worries me," Laj answered pensively; then alertly, as though banishing the thought from his mind, "Come—it is time for our inspection of the ether-magnetizing machines."

THE two turned and, side by side, walked slowly through the wilderness of engines to a special section isolated in one corner. Here stood by far the most gigantic electrical engine in the whole place, thick cable-wound

wires linking up to a massive tube-like object, similar to a telescopic tube, securely imbedded in the ceiling of the place, the whole being set in universal mountings, so it could move in any direction.

Silently the two Martians surveyed the various dials with which the engine was supplied, and listened for a while to its steady humming—an unwavering hum that bespoke the incredibly perfect engineering of these brilliant and ruthless people. Both of them knew that into that tube-like apparatus was pouring, every second, ether-converting magnetism, which in turn was hurled into space in the form of a green ray, to create in ether itself, in the path of Earth's orbit, a mass of crushing electrical force, carefully calculated to be exactly in accord with the types of frequencies existing in human beings and all living things. It was inevitable, on entering that mass, that every living thing on earth would perish. Everything inanimate would stand, ready for the Martians to take over.

Yes, the Martians had laid their plans very carefully and neatly, but even their tremendous range of intellect had not calculated that a stroke of earthly lightning could undo all their devices for sealing the brains of Earthlings. One Earthling, at least, about whom Laj had grave suspicions, was watching and living all this—indeed, performing all Laj's actions, hearing and understanding everything, whilst to outward appearances he was fast asleep. . . .

"Yes, everything is in order," Zin remarked presently. "We have little to do but wait for the time to pass."

"For myself, I am minded to look again at those machines of mine which are responsible for the control of earthly brains," Laj answered. "I

wish to reassure myself they are working properly. If anything were to happen now, it would ruin everything."

"But, Master, the machines have worked perfectly for countless cycles—both yours and Olania's!" Zin protested. "What is the matter with you, Laj? For a ruler you are behaving most strangely—queerly."

"It is not for the Under King-Lord to question his Superior," Laj returned with cold and withering dignity. "We will inspect the machines. Come!"

Silently, though his face was sullen, Zin followed his Master into the adjoining power-room, in the centre of which, surrounded by guardian rails, reposed the complicated engines and varied mechanism that actually were responsible for that state of earthly mind known as "subconscious." The machinery, intricate though it was in appearance, was not too advanced in fundamental principle.

In the centre of the machine, contained within a huge dome of indestructible metal, were two enormous electro-magnets. Upon these were indelibly impressed, by frequent renewals, the commands of Laj—thought vibrations. These vibrations, converted by massive and intricate transformers into electricity were passed in turn to transmitters, which were tuned to earth by the simple expedient of earth's own gravitational powers. It was inevitable then that the transformed vibrations of thought, when hurled through space, would go to the earth. Once there, by contact with the electrical nature of earth's upper atmosphere, the stratosphere, the vibrations were transformed back into their original state—that of thought-waves, and sought out the medium which would be of use to them

—the brains of humans—just as a radio wave could only use a radio set in order to convert itself, and no other type of machine or instrument. The system was brilliant, beyond doubt, but so was the method of sealing human brains afterwards to render them incapable of realizing that they were being controlled by anything but their own will.

From a machine annexed to the Brain Controller, the vibrations of which were guided to reach earth by a similar principle, issued forth a different type of electric energy, so high in wave-length as to be invisible, and being of the consistency of passing through the interstices of a human skull and into the brain itself, reacting upon that portion of the brain known as the subconscious—actually the Martian region, had Earthlings but known it . . .

What had happened to Moore Holmes was obvious, then. The lightning flash had created, in some strange way, a type of short-circuit, which had effectually earthed his brain from further disturbances by the Martian vibration for brain-sealing. He was no longer a conductor for this energy, but an effective insulation against it. Hence his brain, which since birth had been dominated by Laj, was able to perceive quite clearly the being who was responsible for his condition. Indeed, so strong was the force, that he *became* that person and lived in his mind the instant he cut himself off from external impressions by falling asleep.

It was manifest that Laj suspected something, somewhere—suspected that the brain of Moore Holmes was not altogether natural, but with all his ingenuity he could find no way of getting to the root of the mystery. There was nothing to show, and even he

could not dissect a thought and analyze it . . .

"I trust you are satisfied, Master?" Zin asked drily, after a space. "This examination, to my mind, has been to no purpose."

"When I am concerned with your mind I will mention the fact," Laj returned ironically. "For the moment we will say no more. I have work to do—work upon my secret machines."

"Why do you not reveal to the Council—to me—the nature of this secret work of yours? You owe it to us," Zin said bitterly.

"To you I owe nothing," was the King-Lord's response. "Leave me, Zin, that I may work in private. You are too jealous of my power and position to be permitted to know everything."

"Laj, I warn you that—"

"You may go," returned the Martian ruler with frigid emphasis—and at that, with a bitter glance, Zin turned on his heel and stalked out of the colossal place . . .

THE entity of Laj passed slowly into gulfs of unknown mental reaches as Moore Holmes slowly awoke from sleep, to find two faces anxiously regarding him—Sir Arthur and Dr. Mason. They were strained faces, as though considerable effort had been exerted.

"A long vigil indeed," commented the psychologist at length. "You have been asleep five solid hours, Mr. Holmes. It is four in the morning now."

Slowly Moore rose into a sitting posture. "Five hours! But my experience lasted no more than thirty minutes—if that!"

Sir Arthur shrugged. "We cannot possibly determine the period of time taken in such a case as yours, where

the effects are purely mental. The point we're concerned with is, did you see or hear anything of value? You spoke a lot, but in an unknown language. What happened to you?"

"I saw many things—heard wonderful things!" Moore breathed tensely. "You had both better listen carefully, while the memory is clear in my mind."

"Carry on!" Sir Arthur requested, and listened, as did Dr. Mason, in rapt attention as Moore proceeded. When it was over the elderly scientist slapped his leg emphatically.

"Upon my soul, that was worth waiting up for!" he exclaimed. "At last we know the cause of a subconscious mind, the meaning of the green nebula, and above all the fact that earth is indeed in danger. Now comes the point of deciding how to circumvent the menace."

Moore Holmes brooded over that. "I see no way," he confessed presently. "These Martian men are too clever for us."

"I wonder!" breathed Sir Arthur, rising from the bed and commencing his usual pacing up and down, rubbing his hands nervously the while. "I just wonder! This, for obvious reasons, cannot be an actual flesh-and-blood war, because we do not know how to cross space, mainly because you haven't stumbled on that secret during your mental experiences, Mr. Holmes. Obviating the physical possibilities then, that brings us to the mental."

"The mental!" Moore echoed derisively. "Good heavens, Sir Arthur, when will you realize that the beings we're up against are superhumanly clever? Against them dozens of our minds wouldn't match one of theirs! I know; I've been there."

"Exactly—you've been there," the

scientist agreed, ceasing his pacing and coming back to the bed. "Why is it that you can see and do everything *via Laj*? Because a lightning flash earthed your brain against Martian re-sealing vibrations. You can see and live in the subconscious. You're the first man on earth to do it—but by heaven you'll not be the last!"

"Meaning what?" Dr. Mason asked, gazing at the psychologist's earnest face.

"Meaning that we've got to find out what portion of Mr. Holmes' brain was affected, and why! Then, duplicate the effect. By that process we'll be able to make any number of people see into the subconscious."

"Well, it sounds outlandish, but granting you could do it, where would be the benefit?" Mason persisted. "As I see it, from Mr. Holmes' experiences, Laj alone is responsible for the enslaving of earthly men—and this unknown creature Olania responsible for the women. If other earthly men were rendered capable of seeing into the subconscious, they too would only see *via Laj*, since his mentality is the supreme power back of it all. I can't see any benefit at all. Surely Moore alone is enough?"

"You miss the vital point, my friend," Sir Arthur responded intently. "We have the proof that the faint perturbations of Moore Holmes' will created in Laj a feeling of unsettlement; made him realize he was not altogether sanguine in mental outlook. His very actions showed he, for once, doubted his own abilities, much to the amazement of his colleague Zin. Doesn't it follow then, that the more minds there are trained upon him, the more disturbed he will become? The minds of say three men—Mr. Holmes, you, and myself, could so perturb Laj as to perhaps eventually, by mental

suggestion, force him to destroy himself."

"My dear Sir Arthur, you underestimate Laj's mental powers!" Moore reiterated, thumping his fist on the eiderdown. "That creature controls all men with his own one mind, and then you suggest—"

"I disagree," the psychologist returned promptly, becoming heated. "He uses a high powered machine to amplify his thoughts—the one you saw yourself. That machine has impressed upon it Laj's normal thought vibrations, but those vibrations are increased in power enormously by electricity. Just as a person who has a record made of their voice can be heard, when the record is played, for perhaps a distance of a mile by amplifiers. The voice itself has not that power. Same with Laj; his mind alone is not capable of such enormous range and power; it is the mechanical intermediary that does the trick. I do not suppose for an instant that Laj's actual brain power is stronger than that of three combined human brains—if as strong."

"And what about Olania? She seems to control the feminine end," Mason remarked.

"For her, I was thinking of Miss Lanister," Sir Arthur answered thoughtfully.

"You should tell your story to the world's greatest scientists," Moore commented sagely. "Never mind us—never mind Una—tell the brains of the world. Go for the thing in a big way. After all, it concerns all the world."

The scientist smiled bitterly. "I once made the mistake of telling the world of a great discovery and only just escaped being certified insane for the same reason," he replied reminiscently. "I shall tell nobody. Who would believe that the subconscious is really

the region where we are controlled by a master-mind on the planet Mars? Not a single living soul—not even the cleverest No, we'll keep it to ourselves. I do not quite know how Miss Lanister will react. She knows everything, of course, but—"

"Don't worry," Moore advised. "If you do succeed in reproducing my mental condition, I'll write her and get her to come along. She's sensible and intelligent enough to understand Oh, and by the way, if we are controlled, how is it we also do things we like? That puzzles me not a little?"

"That is natural human will power—the very thing which is upsetting Laj's brain," Sir Arthur answered. "He can control, but he cannot usurp the priceless gift of each person's own individual will-power. That always remains."

"I see. Well, we can only hope that you will discover what happened to me"

"We'll try to-morrow," the psychologist answered, stifling a yawn. "For the remainder of to-night Dr. Mason and I will try and get a little sleep. You, Mr. Holmes, do just as you choose. For you sleep is no sleep—just another waking existence."

"I'll just lie here and think things over," Moore replied. "You two go by all means; you must be tired"

Sir Arthur and the doctor silently left the room and Moore, bedside light burning brightly by his side, studied the delicately carved ceiling over his head.

"Mars!" he muttered. "I begin to understand. They have manufactured their own air for unguessable ages, and now their machines are giving out. So they have had the earth made to suit their requirements by commanding Earthlings what to do. Amazing! That's what it is! Radio

and kindred miracles of a modern age are nought but the dictates of Laj. I can't half believe it! And when his commands are withdrawn, if ever, what then? Will man not be able to progress? No—that cannot be. What is learned cannot be unlearned. Man will progress then by his own initiative, given a tremendous onward momentum by the science the Martians have imparted That is if Laj can be destroyed"

He ceased his soliloquy for a space, then, despite himself, he felt himself slipping back into a doze. Before he could make the necessary effort he was fast asleep again, breathing heavily And, as before, Moore Holmes ceased to exist within himself.

CHAPTER IV

L AJ the Martian, King-Lord of the stupendous scientific city to which he was devoted, moved slowly away from two complicated machines upon which he had been engaged, and presently gained the broad balcony that extends from his laboratory into the open air, at the highest point of the lofty edifice that was his palace, his machine rooms, and his home.

For a long time he stood looking down at the city in the light of the warm noonday sun. Once or twice he stroked his smooth, lofty forehead and muttered soundless words—then at a tap on his arm he turned, to find a lesser figure beside him—Olania.

Olania, the Martian woman, was perhaps six feet in height, having a few vague claims to earthly resemblance, being the possessor of a forehead as lofty as Laj's, and a pair of peculiar tawny-yellow eyes. In a fashion she was graceful, and moved with the consummate ease and dignity

begotten of high birth and breeding, her long white robes, covering her from shoulders to ankles, flowing in the hot wind.

"So, Laj, you brood," she said presently, also gazing out over the city. "What is it that troubles the King-Lord? The Master?"

"Even a King-Lord can have his troubles, Olania," The Martian replied. "My mind is disturbed by unwanted influences—by the brain of one Moore Holmes, an Earthling. Nor, so far as I can see, is there any remedy. I am deeply baffled. I inspected the machine some time ago to be assured of their proper working. They are in order. I take it that yours are, too?"

The nearest approach to a laugh came from Olania's massive, pendulous lips.

"Of course, Laj! You surely do not think that the minds of earthly women are left to chance? Oh, no! It amuses me, too, to think of your machine for controlling earthly men proving faulty. You—who are so clever!" There was cynicism in her voice.

"The machines are in order," Laj answered with dignity. "It is a brain, in a man called Moore Holmes that is causing all the trouble. If only one could get to grips with a thought. . . ." Laj crushed a mighty fist on the stone rail before him in impotent silence.

"Perhaps, if your powers are weakening, you would like me to take over control of the males as well as the females?" Olania asked tauntingly. "I could—"

"Utterly absurd!" Laj snapped out. "You know as well as I do that no male mind can control female, or *vice versa*, because both have their individual characteristics. That is why when males and females first appeared on

earth, my gracious sire allotted me the task of controlling males, and you females—because we are to be mated. Let there be no more talk of you taking over control. I have never failed, and never shall—but the personality of Moore Holmes, and his will power, are to me like a grain of sand in a smooth running mechanism. There is infinitesimal friction, and if it increases, that friction can destroy the whole machine . . . I am deeply troubled!"

"And how have you spent your time? Trying to solve the problem?" Olania asked very quietly.

"No; I have merely been busy on my two secret machines, the details of which you yourself know. Never reveal anything about those machines to Zin, Olania. He is jealous of my power; you know that."

"So am I," she returned, her face hardening. "You, the King-Lord, calmly spend the morning with your two secret machines, just to flatter your vanity, and don't try and find out what's wrong with your own brain! Remember, Laj, that unless you reveal yourself as you have always been—master of yourself and your brain—you are no longer entitled to be King-Lord."

"Meaning what?" Laj asked in a low voice.

"It should be clear enough. We are to be mated—the Council has determined that . . . When that happens I shall become the Queen-Mistress. But, doesn't it occur to you that to be the ruler of my peoples, without being your mate, might have greater advantages?"

"But, Olania, we have respect—even love—for each other!"

"Love! That died aeons ago! Power is the greater motivator in our lives, Laj. In my control of earth's

females I have never made a blunder, and I never shall. You, the King-Lord, actually admit that you *have* made a blunder. That, by our scientific reasoning, makes you unfit to hold power. Your removal from power will mean my installation, since we are prospective mates. You know the law of the city, of our planet, Laj. You have broken what we know as the Rule of Infallibility, in which no man may retrogress or reveal mental disturbance—or woman either. You admit you are mentally upset."

Laj's massive lips compressed. "And what regard you had for me—that regard of which you have so often spoken—means nothing, then?" he asked grimly. "You would betray me because of a baffling mental weakness, to the Council of Judicature, and so take my place?"

Olania shrugged. "Regard has no place in the minds of true scientists," she answered coldly. "I would do just as you have said, and place Zin in your stead, under my control, to rule earthly males. Not that that will be really necessary, for by that time we would have started the migration to earth. It is just as well you realize what powers I have got, Laj. I am no fool."

Laj became silent at that, for a space. Then,

"So you would betray me; you in whom I trusted; to whom I told the secret of my two special inventions; with whom I hoped to share my life and triumphs on earth when we arrive to take over possession. Science has killed all your sentiment, Olania."

Olania's face revealed a faint sign of puzzlement at that. "Zin has already mentioned to me that you have revealed sentiment to-day. You are doing it again now. What is the matter with you, Laj? Before this mental

disturbance you were the ideal Master—as cold and faultlessly balanced as the machines you control, and as impartial as infinity itself. I am no different; it is *you!*"

"I find it there; I can do nought but admit it," was Laj's slow reply. "It is, I agree, an element long dead, but evidently it was only dormant. I must find means to check it"

Olania drew her fluttering garments about her at that, tossed another glance at the colossal city, and then looked back at the silent ruler.

"I will give you until to-night to come to your senses, to master your own will and rid yourself of the influences of this ignoramus you call Moore Holmes. Above all, you must banish that archaic element known as sentiment! If you do not do so, I shall place the entire matter before the Council of Judicature. Good-by."

She paused on that note and looked again at Laj's set and powerful profile against the blue of the cloudless sky. "You know, Laj, even a woman can love power," she added in a softer voice. "Laj or otherwise, regard or matehood, nothing could suit me better than to be sole ruler That is all."

"I have heard," Laj answered in a somber voice, and never removed his gaze from the embodiment of power that was the city.

Perplexities! Disturbances! Something interrupting the usually smooth-running currents of his tremendous intellectual stream. *Moore Holmes! Moore Holmes!* The fierce, insistent, individual will-power of the innocent Surrey schoolmaster grew with the passing hours upon his consciousness, so delicately was the Martian brain adjusted. The slightest untoward influence could mar that supreme alignment.

Moore Holmes Somewhere, something was amiss

IT was full daylight when Moore awoke, the bedside light still burning by his side. To his surprise he found that, although he had lived as Laj, his body was refreshed as though with natural sleep. He decided it was a clear evidence of detachment of mental from physical power.

Over breakfast he made the outline of his later experiences clear to Sir Arthur and Doctor Mason.

"So we approach a little nearer!" Sir Arthur exulted, tackling eggs and bacon with most unscientific detachment. "The creature Olania, of whom we have heard but little until now, is the controller of female brains, and Laj of the male. We have that quite clear now. And will there be some fireworks when Olania discovers that the same thing that has been upsetting Laj is also upsetting her!"

"One fact is obvious," Doctor Mason said, in the manner of one who has arrived at a momentous decision. "Laj will not be able to break the influence of Moore, or will he overcome sentiment, because it is a part of Moore's own mind. That means Olania will head for the Queenship, or whatever they call it, and Laj will be deposed. What then? Granting your experiments succeed, and Miss Lanister is agreeable to helping us, how can she influence Olania?"

"If what Olania said is true, she will not be the Queen-Mistress until after the end of the earthly race—and that won't be much good!" Moore grunted.

Sir Arthur smiled tolerantly. "My dear chap, if we succeed, Miss Lanister's influence over Olania will make her as incapable of ruling as Laj himself—then where will the pair of them

be? They are, obviously, the controllers of Mar's destiny, outside of their infernal Council of Judicature, and so if both of them develop the same faults they will keep quiet. That will mean that Laj will continue as undisputed ruler. All this, of course, granting that Miss Lanister's mental powers are sufficient to upset the balance of Olania's brain. If not, we shall have to let other women into the secret, but not if we can avoid it. We know that these mental disturbances are progressive in action. At first, Laj was not much disturbed by Moore's mental efforts, but as the time has passed the intensity of the trouble has increased. If we can add two more minds to Moore's—my own and yours, Doctor Mason—Laj will not know what the devil he *is* doing. We can try and make him withdraw that etheric barrier."

"And Olania?" Moore asked quietly.

"Well, granting Miss Lanister is up to it, we can make Olania agree with Laj in his ideas. That will mean that the two principal beings on Mars have ordered the withdrawal of earth's destruction, and because those two *are* the virtual rulers of Mars nobody else can disagree. It's all perfectly simple."

"Zin will have something to say about that; so will the Council," Moore commented grimly.

The psychologist shrugged. "Probably so. Still, we have a scheme to work on, anyhow. The first thing to do is to try and duplicate Moore's strange mental powers"

So, when the breakfast was concluded, Sir Arthur led the way into the laboratory and locked the door, changing, as though with a wave of a wand, into the alert, penetrating scientist that the world knew—the wizard of psychology.

"I imagine we can get to the source of the region of the brain affected by the use of my Triple-X ray," he said, once more rubbing his hands. "You have heard of it from the newspapers, no doubt Here it is."

He led the way to a machine resembling a television receiver at the far end of the room. The main feature of the apparatus was a screen of some dark substance, and numerous wires and terminals were around the screen's edges, the wires themselves leading back to a helmet adorned with plugs and adaptors of varying shapes and sizes.

"You see, one dons the helmet, and by doing that the various frequencies from those adaptors cause a vibratory impression of the brain itself to be received, which are enormously magnified and passed on to this screen. The result is a much enlarged picture of the brain. And here is the virtue of my invention. Any part of the brain which is not absolutely normal is shown as black, because the least fault in the vibration causes a short circuit which immediately puts out the current of the wire leading from that particular spot. So, we may get to the cause of Mr. Holmes' trouble, find its situation, and then endeavour to produce the same effects. Now, Moore, if you will sit in the chair, we'll try and find something out."

Moore nodded, seated himself, and permitted the scientist to fasten the helmet on his head, securing it with a strap beneath his chin.

"So far, so good," Sir Arthur murmured, and turning to the control board he threw on the power, watching the red safety bulb that immediately came into life, and then glancing at the three electro meters which gave the voltage reading. Satisfied at length, he joined Dr. Mason in watch-

ing the screen, which, despite the daylight, was already suffusing with a brilliant silver light Slowly, gradually, out of the bars of silver and mist, there began to appear a gigantic, mirrored picture of the brain of Moore Holmes.

The whole business was scientific brain surgery of a remarkably high order.

Presently the picture was clear in all its details from the cerebellum at the base, to the summit of the fissure of Rolando at the top. For a while it seemed that the brain was perfect, then Mason and Sir Arthur started forward eagerly as they beheld a slowly appearing black patch, which quite abruptly, as the circuit was cut off, came into sharp relief. It lay to the right of the frontal lobe, nearly touching Rolando's fissure itself.

"So, that is the affected spot?" Sir Arthur breathed. "Excellent—truly excellent! By some vagary of electricity that was the portion of Mr. Holmes' brain that was affected, and which opened the subconscious region to his knowledge. I will take a photograph of it at once."

He brought a heavy camera into operation, took several photographs to be assured of at least one clear result, then switched off the Triple-X Ray. Moore took off the helmet and got to his feet at the scientist's behest.

"So you found it, eh?" he asked, for he had seen everything.

Sir Arthur nodded. "Yes. Once these plates are developed we'll know exactly how we stand. Pardon me a moment whilst I go into my dark-room."

HE went off eagerly to an enclosed portion of the laboratory, to return perhaps fifteen minutes later with four dripping prints in his hand.

Three were not too good, but the fourth was a masterpiece. Moore's whole brain was clearly in evidence, with the dark spot wherein, literally, lay the key to another world!

"Now what?" Mason asked. "Reproducing lightning is going to be ticklish, isn't it? You might kill us trying that out."

"On the contrary, my dear Doctor, if I thought that, I would think it clear that I should go no further. It seems to me that the electrical shock, which Mr. Holmes received was only the minutest portion of the full power of the lightning flash. It *must* have been. Had he received the full force, he would have been blasted into powder. It reached him, we find, by way of his left arm. That so, Moore?"

The young science-master nodded, pushing up his sleeve to reveal his still bandaged forearm.

"It seems logical to assume then that the connections by nerves from the arm to the brain will bring us exactly to that spot which was affected in Mr. Holmes," the expert went on eagerly. "You understand? Of course, every part of the body is connected by nerves to the brain, but it is not altogether easy to determine where the nerve-endings come. In Moore's case, we have absolute proof that the connection to the subconscious region lies entirely in the forearm nerves, maybe deep below the surface skin. This photographic print shows the brain connection clearly. I propose, as an experiment, to use ordinary electricity, which is lightning in modification, of course, and apply it to my own arm, in exactly the same position as that elongated blister on Mr. Holmes'. You will have to take the bandages off for that, Moore. Then, as the power is increased, I can determine if the same effects can be reproduced."

"How much voltage?" asked Dr. Mason uneasily.

"Oh—er—start with twelve and work up. I can stand that."

"You've got a nerve, sir," Moore commented candidly. "The shock I got knocked me silly for the time being. I might have been killed, even. Twelve volts won't do any good. It was more like 4000 that hit me!"

Sir Arthur shook his head. "Couldn't have been; you'd have been killed stone dead. However, I think I know enough to stop before I go too far. Besides, we have little option but to go ahead if we want to try and save the world. You can assist me in constructing a gadget for the experiment."

He moved to his electrical bench, and the morning passed in the construction of an instrument somewhat resembling one for testing blood-pressure. To a long strip of copper foiling, interspersed with rubber bindings to render the thing elastic, were soldered eight copper wires, all leading back to a small generator, which was capable of controlling electric voltage from as low as 10 volts to 1,000 by specially made regulators. The result would be that the current would pass into the copper foiling and thereafter into the nerves of the arm, thence to the brain.

What the result would be the experimenters did not then wish to conjecture.

Sir Arthur seemed satisfied enough; he ate a hearty dinner, despite what lay before him, then, after a large-sized cigar and a brief chat he led the way back to the laboratory and lay down on the table that had been prepared for the purpose, possessing rubber matting on the top next the body, and a rubber insulated earth-rod to be gripped by the hand of his disengaged

right arm. This would at least provide some insulation for the body.

"Carry on," the scientist said grimly, and, assisted by Mason and Moore, slid the arm-band into position. This done he lay down at full length and cocked his head to watch the voltmeter readings from the generator.

"Right!" he ordered, and gripped the earth-rod.

For a moment Mason, who was operating the resistances, hesitated—then, shrugging his shoulders fatalistically, switched on the power at 10 volts.

"Increase," said Sir Arthur after a while. "I can't even feel that!"

So the power was allowed to become stronger until presently it reached 25 volts.

"Good—my arm is tingling!" the psychologist remarked in satisfaction. "Proceed—higher! Higher, man!"

The power moved up to 50 . . . 75 . . . The expert gripped the earth-rod with a vice-like clasp. His jaw was set and immovable.

"More!" he ground out presently.

"But, Sir Arthur, it's electrocution—" Mason protested.

"Shut up! More!" Sir Arthur almost snarled, and the power leapt up to 100 volts. His arm began to tremble apparently of its own accord under the increase. Perspiration broke out on his face with the tremendous strain.

"Not enough. More yet!" he panted.

Dr. Mason again obeyed and marvelled how the old man stood it as the power rose higher and higher, volt upon volt—until presently the 180 mark was reached. At this, Sir Arthur suddenly relaxed and became still. Instantly Mason cut the machine off.

"He's—he's dead!" Moore shouted in horror.

"No he isn't," Mason returned curtly. "Just passed out, that's all. No wonder! Give me a hand, will you . . . ?"

Between them they lifted the scientist from the table and placed him in a nearby chair. Under the influence of *sal volatile* and cold water he began to recover consciousness. At last his eyes opened, and after a long pause he spoke.

"It worked!" he breathed. "180 volts is the number. Just at that instant I caught a glimpse of a stupendous city, such as Moore described—then, when I lost consciousness, I took on the form of Laj, entirely as we anticipated. Yes indeed"—he closed his eyes for a moment—"it is successful. I see through the eyes of Laj when I close my own. We have succeeded! Except for a headache and a blistered arm I'm none the worse. If we took the trouble to use my Triple-X Ray, I'll warrant we'd find my brain black in the same spot as Mr. Holmes'. . . ." He peeled the arm-band off and revealed a red, burned arm. "It's a hellish process, savoring of mediaeval torture, but there is no other way," he said grimly. "Ointment will soothe this. The point is, Doctor Mason, are you willing to undergo the same thing?"

"Certainly," the doctor assented readily. "I'm no weakling. The only thing I am really worrying about is—"

"I know—Una," Moore remarked. "You needn't—either of you. She is a woman of courage; she'll stand it."

The psychologist shook his head slowly. "I don't like asking any girl to subject herself to such merciless treatment," he muttered. "It's—it's devilish. Suppose she couldn't stand it? Suppose we killed her?"

"In a case of this sort, it is for her

to decide," Moore replied quietly. "I'll wire her to come right away, then we can make up our minds. She'll be here by evening if I telegraph right away."

Sir Arthur nodded. "Very well, you do that. Whilst you're about it, I'll fix Doctor Mason up with the process. Now, if you are ready, Doctor?"

"Entirely," Mason assented, without hesitation, lying down on the table—and so, operating the current himself since Moore had left for the post-office, Sir Arthur got to work on the school doctor's arm.

He too passed into a faint in the concluding moments, but recovered shortly afterwards, to find the work had been successful. He, too, had been admitted to the subconscious region . . .

So were born two more personalities to further upset the equilibrium of the brain of the super-being, Laj the Martian . . .

CHAPTER V

AT eight o'clock that evening in response to Moore's telegram, Una presented herself, baggage and taxi, at the scientist's residence. A housekeeper, with more interest in cooking than in the world, directed her to her room—then, after a late meal, Sir Arthur outlined the whole scheme of things to her.

His narration left the girl in a thoughtful mood.

"Well," she said presently, "you men have discovered wonderful things and done wonderful things, but in my opinion you have made a huge mistake in regard to the opinion you have of Laj and Olania."

"In what way?" Moore demanded. "They're both nothing more than a couple of cutthroat, ambitious devils. Don't you realize, Una, that for cen-

turies—ever since our human race began—these two creatures have controlled earthly men and women, purely for their own ends? Have literally done what they like with male and female brains."

"I know it," the girl nodded quietly. "Now they are trying to wipe out every human being, which you men interpret as a fiendish thing to do. But you have forgotten to include that in their doing that lies a necessity. Their world is dying. They must find another abode, so, not unnaturally, they choose the abode they have prepared, much as we would prepare a house and go into it."

"We wouldn't kill the occupants to get into it," Dr. Mason pointed out.

"If you were faced with death as the alternative, you would," the girl returned with calm firmness. "You men have made a mistake in considering these Martians to be a ruthless and terrible people. Immediately you decided you would try and get the man Laj to kill himself. In that you also are murderers! You are, quite unconsciously, revealing the same strain that causes wars on earth. No woman ever started a war, gentlemen—men alone do that. And will do—because they have more of the beast in them than a woman has."

Sir Arthur rubbed his hands together in delight. "Excellent, Miss Lanister! You are a really remarkable young lady! Upon my soul, I would never have suspected a young woman of your age would take so much interest in our work. Please go on."

"It seems to me, that if these Martians are as terrible as you imagine, they would have come to earth before now to achieve mighty conquests. They can cross space; you have found that out. Yet they never have done so. Until absolute necessity has arisen;

they've left us alone, but have controlled our minds to make this planet fit for them when they need it. That alone points not to wilful extermination, but to dire need."

Moore grunted. "What do you propose we do then? Drop the whole thing? Let humanity be destroyed by the green nebula?"

"Anything but it," Una answered slowly. "I am quite willing to undergo the brief pain necessary in order to become admitted to the mind of Olania, my subconscious mind, but I make one stipulation."

"Yes?" Sir Arthur's eyebrows elevated enquiringly.

"That I handle Olania in my own way, as I see best in my own judgment. You men do as you wish."

"Fair enough," Moore answered. "Are you sure you can stand the electric current, though? It might kill you."

The girl smiled faintly. "It'll take more than that to kill me. All I want to know is, when do we start? The sooner the better, you know."

"Well, you are tired after your journey to-day. Suppose we say tomorrow?" Sir Arthur suggested.

"And lose a night?" the girl ejaculated. "Foolish policy, Sir Arthur. Why, when I sleep to-night I may just as well sleep to some purpose, instead of dreaming a lot of silly, irrelevant rubbish. Better 'electrify' me right away, then when I go to bed I can get busy on Olania."

"Well, if you insist" The psychologist shrugged.

"Certainly I do! Come along—let's get it over with."

Una rose purposefully to her feet; the men glanced at each other in silent amazement and admiration, then Sir Arthur preceded them to the laboratory.

So for Una, as it had for Doctor Mason and Sir Arthur, the electricity got to work via her left arm to her brain. With amazing courage and strength she clung grimly to full consciousness up to 120 volts, then the pace was too much for her and she swooned. With cold persistency, the psychologist increased the voltage to the requisite 180, watching her limp arm jumping visibly with the current. Once that mark was reached he switched off and the girl was swept off the table, immediate measures for her resuscitation being taken.

IN ten minutes she had recovered again, to find her arm wrapped in ointment-smeared bandages. That faint, courageous smile flitted over her features.

"All right, Sir Arthur, what are you worrying about?" she asked at last. "It was worth it, wasn't it? I've already seen through Olania's eyes, and because I am also a woman I can see something of her viewpoint in desiring power over Laj." She straightened up from her huddled position. "I propose that when we retire tonight we strain every mental concept to bring matters to a head," she said quietly. "We might as well do it now as later. Is it agreed?"

"If you are up to it, yes," the psychologist agreed.

Una nodded. "All right, then. If you've no objection I'll retire right away. My head is aching, just as yours did. It'll pass off . . . Now, don't forget! Work with might and main!"

"We will," Moore assured her. "Shall I help you to your room?"

"Good heavens, no!" She rose to her feet, holding her bandaged arm. "I'll manage all right—trust me." And with that she turned and slowly left the laboratory.

The three men glanced at each other.

"Now that is what I call a woman!" Sir Arthur breathed admiringly. "Courage and resource, and yet—femininity. Moore, my boy, you are a fortunate young man."

"Yes, I suppose I am," he admitted. "We'll do as she says, too, and concentrate for all we're worth to-night. Suppose we get to bed right away and have a long night? Eh?"

"An excellent suggestion," Sir Arthur agreed. "Come—let us go."

Laj the Martian walked slowly along the aisle between the machines of which he was the master, and presently gained his usual position on the balcony overlooking the city. It lay before him, white and immense in floodlights, for the Martian night had arrived.

For quite some time he stood watching the satellite Deimos on its leisurely path through the heavens, then his gaze swung to the western horizon as the satellite Phobos suddenly appeared—active little Phobos, swinging round Mars in slightly over seven and a half earthly hours. Phobos, who always rose in the west . . . Then presently Laj's eyes wandered away from the scurrying satellite to a bright green star low down on the horizon—earth. The nearest approach to a smile seemed to touch his heavy lips.

"The new life—the new being of our race," he muttered. "It has been worth it, and yet . . ." He fell to silence again, eyes brooding now on the city's egregious mass—then they moved on to the gleaming ribbons of the dying waterways. "A pity that such mental upset should disturb my progress at this point," he murmured presently to the thinning air. "Far from improving, my mental troubles

have increased. I see now three personalities, where formerly there was only one. This is indeed serious."

"Is it?" inquired a voice, and a half turn assured him that it was Olania moving very slowly towards him. Silently he realized it was time for her to arrive for her decision.

"So, Olania, you have come to betray me to the Council," he commented quietly—then turned to look directly at her as she remained silent. He beheld her outlined against the brilliance of the laboratory behind her; his eyes caught the reflected light from a massive machine facing the balcony—one of his secret machines.

"I wonder if I *have* come to betray you," Olania muttered at last.

"What do you mean by that?" Laj spoke with the imperiousness of the ruler he was.

"I mean that I too have fallen a victim to mental disturbances, Laj! You are not alone; we are both in the same position. You perhaps more than I—but there it is! I cannot betray you, for you can betray me, and between us we should lose control. That would mean the downfall of our race, for we are the foundations on which it is built."

"Very true," said Laj solemnly; then after a pause. "I have been wondering these past few hours why it is that progress and power must always be at the expense of something lesser. Somebody with feelings, like us, has to be destroyed in order that we, the masters, may stride over it all."

"Sentiment again," Olania murmured. "I derided you this morning, Laj, for that queer emotion, only to find to-night that I have it myself. I can dimly see the formation of an earth woman in my mind—a Una Lanister."

"I see as many as three earth men," Laj responded grimly.

"Then it means only one thing," the Martian woman decided. "The creatures whom we have controlled for all these cycles are at last becoming cleverer than us! They have found out our secret, Laj, and their minds are disturbing ours. That is inevitable after the centuries and ages that have passed during which human minds have been linked to ours. They will seek a vengeance, Laj. Suppose a hundred men tackle you, and a hundred women me. They could upset our delicately adjusted brains so much as to drive us to insanity!"

Laj frowned. "That doesn't seem to be their object, Olania. All they have done is to bring an element of sentiment to worry along with.

"The woman Una is doing more than that to me," Olania said. "I feel, I even see—differently. I begin to realize, either through her brain or my own, that all this is a terrific mistake. We have made progress and lost sentiment, and sentiment, Laj, although I ridiculed it earlier today, is the foundation of true life. We had it once, and lost it in this mad, ridiculous maze called—science!"

"So I feel, too," Laj said in a low voice. "Before to-day I looked with pleasure on traveling to that glorious world of earth—on seeing our race progress in a world made for us by fools who do not understand their own brains. But, since the arrival of these disturbing mind-influences, I have thought differently. In some way—I am changed! Perhaps I am a fool!"

Olania shook her head. "You are thinking that the destruction of one race that another—ours—might live, is unjust?" she asked softly. "You feel that you are striding too far? Usurping?"

"Just that . . ." Laj confessed, and then relapsed into momentary silence.

Olania shrugged her shoulders and looked towards the sinking green dot of earth.

"After all, *can* we progress much further?" she asked quietly. "There is a limit, even to progress. We have mastered all the sciences; there is little more to really accomplish, except for going on living amidst the luxury of what we have achieved. We shall not actually go any further. Like being born again, but with all our knowledge there to start with. The same old things—always. And upon our consciences there will always lie the indelible memory—we destroyed that we might live!"

Laj considered through an interval. "Our world will die in a few weeks—so will earth's peoples. We are facing a gigantic question Olania. Which shall die? Earth, or Mars?"

The silence of profound thought descended upon that problem. On the earth, three men and one woman, fast asleep, strained every atom of their alert subconscious minds to influence the sensitive brains of the 40,000,000 mile distant Martians on the laboratory balcony.

At last Laj spoke in his profound voice.

"It is better that we admit our progress has ended—that our race has run its course and must die there. Progress further we cannot; we can only live in what we have already attained. What right have we to destroy a world's peoples? None! For you and me, Olania, there can always be the eternal sleep, beneath the eternal stars. Not material matehood—no King-Lord and Queen-Mistress—but the interweaving of our respective great minds. Together, with the

knowledge we possess, we can wing eternity and sweep, unhampered, to the furthest star."

"How true," Olania murmured, moving closer to him. "Until now cold science has held us apart; we have to thank the Earthlings for bringing us back that forgotten element—love. To admit the end has come is befitting of a mighty race."

"So be it, then," Laj said, standing erect. "I, the King-Lord, have proclaimed it! Our world shall die! Earth shall be freed! To-morrow, I will inform our peoples; they cannot defy my edict. Tonight I will stop the etheric barrier machine and remove the danger to earth's peoples. After that—comes the end."

"A rightful end—" Olania began, then stopped and looked round in alarm as a figure darted swiftly forward on to the balcony, face contorted with rage. It was Zin.

"What is this utter foolery I have been overhearing?" he demanded savagely, glaring at the two in turn. "Save earth! Let Mars die! Laj, have you taken leave of your senses?"

"How came it you dare to overhear? Further, how dare you question my edict?"

"When it involves my life, and the life of our race, I dare question anything!" Zin retorted. "For too long now you have been secretive and mysterious. Those two secret machines of yours, for instance. Your recent leaning toward sentiment. . . . And now, this! You are going to plunge every living soul on our world into death. Let us die in the cold and airlessness of the void itself."

"You heard me say our race has run its course," Laj returned steadily. "Do not dare to disobey me, Zin, or it will be the worse for you—"

"Both of you are being influenced

by minds other than your own!" the Martian spat out venomously. "But we shall see if you can destroy our people as easily as that! It was only my suspicions of you that led me to listen to your conversation with Olania tonight, and now I have found you out. You traitor!"

"Zin, how dare you—" Laj began furiously, then before he could proceed any further the inflamed Zin had flung himself forward. In a moment he bore the King-Lord to the stone floor.

Desperately the two Martians staggered back and forth along the balcony. Laj was a powerful creature, but so was Zin. The trouble was that Zin was aided by an all-consuming fury that lent triple strength to his powerful muscles.

The encounter was very brief—and tragic.

Seizing a momentary opportunity, Zin seized his master round the waist and lifted him high in the air to the balcony rail. Laj struggled desperately, but a blow in the face half-stunned him for a moment. The next instant he was flying out into the darkness—down towards the stupendous city below. Down to instant death

Olania stood stupefied, paralyzed. The mind of Una swung her over to grief and tears, and for the first time in her unguessably long life, moisture welled up in her eyes. Through the blur she saw Zin, grinning devilishly, approaching her

BACK on earth, at the identical moment of Zin's approach towards Olania, three men and a woman simultaneously awoke. Within five minutes they had sought each other out, and, hastily attired, went down into the lounge.

Sir Arthur switched on the lights

and handed brandy round with grim solemnity.

"We are faced with a crisis," he said quietly. "Since we all beheld the same thing, we know exactly what took place. When one of us awoke, we all awoke, by a subconscious union of thought. We all know that, for men-folk at least, the power of the subconscious control is forever broken. Laj, Master of Mars, is dead."

"And if Zin has his way, Olania will soon follow suit," commented Mason gravely.

"Exactly so." Sir Arthur stood silently considering for a moment. "As far as we men are concerned, our power is ended. We can no longer view Mars or its inhabitants, because the link snapped when Laj died. His machines alone are useless, because they have not the power to *think*. The issue is left, therefore, with—Olania."

"With me, you mean," Una remarked, setting down her glass. "Upon my shoulders rests the incumbency of trying to save a world."

"It is not right that you alone should face it," Sir Arthur exclaimed. "Let us get other women to help you. Alone, you don't stand a chance!"

"You think not?" Una asked. "You saw for yourself how, single-handed, I swayed Olania over to sentiment, whereas it took three of you men to sway Laj. Do you know why? Because Olania is a woman, being tackled by a woman, and in that very fact lies her undoing. She would be more than a match for any army of men with her subtleties, but a woman, embodying the same subtleties as herself, playing craft with craft, mind against mind, can overcome her single-handed. And the main reason for my control over her is that I have swayed her towards *sentiment*, and inborn in every woman—I care not

what planet she belongs to—is that one irresistible element . . . Laj was a harder case. It took three men to win him over. I alone, I remain convinced, can master Olania and save the earth. In any case, there is not the time to call in other women and explain everything to them."

The psychologist shrugged his shoulders. "Very well then, Miss Lanister. Since you seem so confident, you had better resume activities right away. If you will sit in that chair I will give you a sleeping-draft. There is no time to lose."

The girl nodded calmly and sat down, Mason and Moore on either side of her, regretful that they could not view through the Martian eyes of Laj any longer. Sir Arthur disappeared into his laboratory, to presently return with the sleeping-draft.

In ten minutes Una was once more asleep, flinging her subconscious mind across the unthinkable reaches of sheer infinity . . .

Una's first conception, *via* Olania, was of facing an immense circle of inscrutable, vaguely earthly faces, all at regular distances apart. As she turned slowly on her heels the faces met her in every direction. She was in the centre of a colossal room, a solitary and defenceless figure, surveyed by some two hundred of Mars' dignitaries and scientific advisers.

Amongst this circle of erudite creatures there presently rose up the fierce, impetuous figure of Zin himself. He pointed an accusing finger at the silent woman.

"There she stands, a traitor to our cause and our world!" he thundered. "She is the one who planned to travel to earth alone that she might gain the mastery over that planet with her knowledge; she it was who destroyed our beloved Master Laj; she it was

who enticed him to the laboratory balcony and then flung him over to his doom. I witnessed it with my own eyes and then brought her here, by force, into the presence of this most Supreme Council of Judicature."

"You bring a grave charge against Olania," commented Ral, Supreme Adjudicator of the Council. "Olania, what have you to say in defence of Zin's statements?"

For a long time the Martian woman remained silent, battling between the ideas of her own mind and those which Una was putting into it. Una won, for a very good reason. For Olania, grief-stricken at Laj's death, was in no condition for exerting her own will to any extent. This alone rendered Una's complicated task easier.

"Zin tells nothing but lies!" Olania burst out at last, passionately. "He himself is the traitor—not me! I will put my cause before you, and pray to the justice of this supreme gathering that I will be heeded. I issue a plea for sentiment—for wise and just thinking. Out of the cosmos, from earth, has come a change of thought—a leaning towards justice. It affected Laj, and it is still affecting me. Laj and I had planned to let earth go free and allow our world to die its natural death. Let our race end for evermore. Zin knows this; he overheard it—then killed Laj to save his own worthless skin. Let him deny it, if he can!"

"A leaning towards sentiment is not for a scientific race," responded Ral with cold decision. "That alone renders you an outcast, Olania. If, of course, Laj *had* ordered our race to cease activity, he would have been incontinently obeyed. As it is, he is dead. And you killed him! You had much in common with Laj, Olania. Only to you did he tell the secret of his two

special machines. You had no right to hold that secret from us. What did those machines contain?"

A strange light came into the eyes of Olania at that. She swung round to face Zin.

"Did this devil Zin tell you that?" she demanded fiercely.

"He told us of your confederacy with Laj," Ral conceded gravely. "Quite rightly he believes the machines should be made clear to the Council."

Olania hesitated at that, then a faintly whimsical smile came to her face.

"I gave Laj my solemn word that I would never reveal his secret—but now he is dead I am released from that promise," she said quietly. "The machines are not important, but they are new to our science. Laj knew that with such machines Zin could do many things that would not be for betterment of our race. With those machines, Ral, I can prove my own innocence and Zin's guilt!"

Zin's expression changed. He jumped to his feet again.

"Why are we wasting time discussing these fool machines?" he demanded arrogantly. "We are passing judgment on Olania, not discovering Laj's secrets. Leave that until later."

Ral slowly turned his head to the petulant Martian. "You yourself desired the secret of those machines to be revealed, Zin; your wish shall be gratified," he returned tonelessly. "Proceed, Olania—we will follow."

THE girl turned and led the way from the council chamber into Laj's adjoining laboratory. Only once did she pause, and that was to look at the body of the dead ruler, now stretched inert on a near-by table—then, swallowing something in her

throat, she moved across to the two machines near the balcony opening, upon which Laj had been secretly engaged.

It was at this point that the mind of Olania overcame that of Una, with the result that the earth-girl was forced to behold purely the actions of Olania herself, swayed by her own mind—and extraordinary actions they presently proved to be, too.

"Proceed," requested Ral's somber voice, and he, Zin, and the Council watched very intently.

Without speaking the girl took several wires that depended from the larger of the two machines, and placed the sucker-like terminals, with which the wires were supplied, on the dead ruler's brow. With the same calmness she switched the machine on, listening for a while to its humming. Then, by means of a hidden lens, there came a white beam of light that presently focussed itself upon a small screen provided for the purpose. The view to Olania—and Una—was familiar.

It represented the Martian woman in every detail, talking quickly but soundlessly, evidently to Laj. For some time this continued, then there appeared the figure of Zin. He mouthed furiously, then became engaged in combat with an invisible foe. The picture reeled crazily, representing what Laj had beheld with his own eyes. It went tumbling down through darkness and finally expired Grimly Olania switched the instrument off.

"That is one of Laj's inventions," she explained slowly, her eyes on the glaring Zin. "Capable of reading a dead brain by stimulating the dead cells into momentary life and reproducing by electric currents the exact things last witnessed by the optic

nerves. Laj knew what use Zin could make of such an instrument—that was why he refrained from explaining it. He knew Zin to be a traitor and an assassin. Can there be any more doubt in your mind, Ral, that Zin is the culprit?"

All eyes turned to the villainous Martian.

Quite abruptly, however, he turned swiftly, started to run, and before a single hand could be raised to stop him he had vaulted the balcony rail and dropped out into the blackness beyond.

Followed a long silence.

"Olania, you have proved yourself guiltless," Ral murmured, placing his arm round the woman's massive shoulders. "But we still have no proof that Laj ever said our race should die and leave earth unmolested."

"That brings me to Laj's second and last secret invention," she answered quietly. "You will know, of course, that sound-waves travel outwards until they are imprisoned by the higher reaches of the atmosphere?"

Ral nodded, and the girl turned to the second machine.

"Here again Zin could have learned many secrets that were not intended for his prying ears. Hence Laj's caution. Now listen"

Olania set to work with the various dials and operated the complicated sound-detecting mechanisms. For a long time a weird medley of unwanted sounds came surging through, and then unwanted voices; at last, as the Council was getting impatient, came the right sequence.

"It is better that we admit our progress has ended—that our race has run its course and must die there. Progress further we cannot; we can only live in what we have already at-

tained So be it, then. I, the King-Lord, have proclaimed it. Our world shall die! Earth shall be freed! Tomorrow, I will inform our peoples; they cannot defy my edict. Tonight I will stop the etheric barrier machine and remove the danger to earth's peoples. After that—comes the end"

AND so, gradually, the machine went on, giving verbatim everything that had been spoken, even through Zin's fierce words and altercation, as further proof of his unquestionable guilt. When it was over Ral raised his hand.

"It is enough," he said steadily, bowing his head. "The King-Lord ordained it; it is for us to obey." He turned to the members of the Council grouped about him. "Give the order at once for the stoppage of the etheric barrier machine—stop the Brain Controllers—stop all machines likely to endanger earth" He paused and turned to the now silent girl.

"And you, Olania?" he enquired gently. "You admit that you loved Laj? You said you did. He spoke of some extramundane matehood, too highly elevated for our minds to grasp"

The Martian woman nodded slowly. "I am the master of my death, as I have been of my life, Ral," she replied quietly. "Leave me alone for a moment, please. I have here a tiny capsule"—she held out her hand—"which by an instant's pressure will release through a self-inflicted cut in my hand a poison, into my blood-stream, bringing instant death. I am dying sooner than you others—that is all."

"You have courage, Olania," Ral commented thoughtfully.

"To meet death does not require courage; to meet life it is that requires it," came the strange reply, and

with that Olania walked across to where the dead Laj lay upon the table. Without hesitation she climbed up and lay down beside him. Her right hand closed tightly; came a faint crackling sound as the capsule broke

With slow dignity Ral went over to her, stood for some time looking down at her limply dangling hand, blood clotting the palm—then his gaze moved to her peaceful, faintly smiling face and closed eyes.

Ral raised his hand in silent salutation.

"So be it," he murmured. "Our race has run its course; it is the end." Then blackness descended

* * *

Una came slowly to her senses in the armchair to find three worried faces surveying her. Stimulants brought a rapid return of her faculties, and at length she was able to answer the myriad questions that were hurled at her. Quietly she answered them all.

"So, partly influenced by my mind, and partly by her own, Olania saved the earth," she concluded at last. "When she killed herself at the finish I was permitted to still see the man, Ral, for a short period, presumably because the brain did not die on the

instant. My last vision was his salutation. That broke the subconscious union for ever. Man and woman will be unhampered ever after this."

And such indeed proved to be correct. From that moment onwards nobody on earth ever dreamed; people who formerly had possessed mediumistic and clairvoyant tendencies were suddenly devoid of them—all strange inexplicable conditions of the brain vanished completely and absolutely. Yet progress went on, mainly because, even as Moore had once theorized, man could not unlearn knowledge. So the result was a happier earth, and a much less mentally terrorized peoples.

But only a Surrey schoolmaster, who later ascended to a headship and a comfortable salary, and his practical, unselfish wife knew the reason why. Dr. Mason had died fairly early in life, and Sir Arthur had destroyed himself in an accidental explosion, so only Mr. and Mrs. Moore Holmes possessed the secret.

In all the world only they knew that the answer lay in a red planet, which they often viewed across the south country meadows—a planet wherein lay a dead race, the secret of subconscious control sealed for ever in brains and bodies that were frozen into the relentless coldness of infinity itself....

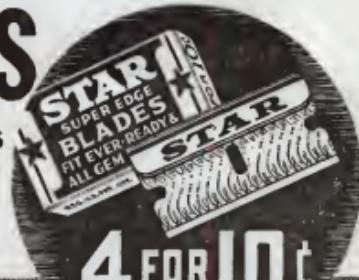
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FIT GEM AND EVER-READY RAZORS



Mr. Dimmitt Seeks Redress

By MILES J. BREUER, M. D.

A mayor of one of the world's greatest cities has been crusading against automobile accidents. They are generally due to high speed. A short time ago his car in which he was present was stopped and the chauffeur was warned against going so fast. This really happened. In this story we read of a narrow escape and in view of the above it is very timely.

"IT'S no use, Professor," the lawyer said sympathetically to the hopeless looking little man in spectacles. "You have no witnesses. It is only your word against his. Old Graw is rich and unscrupulous, and a wily old politician."

The little man stared helplessly across the desk at the trim and ample figure of the successful attorney.

"Nothing?" he asked feebly. "He murdered my wife and daughter!"

"I advise against legal action," the lawyer repeated gently but firmly, doing his best to soften the hopeless finality of the statement. "There is nothing to bring before a court. You would not stand a chance in the world. And you have no money to waste."

"No," Dimmitt murmured. "I haven't even enough to get me another car."

He sat silent for a while. Then he rose. Standing up he was only slightly taller than the seated lawyer. The thousand little wrinkles on his face settled into an expression of dull despair.

"What do I owe you?" he asked reluctantly.

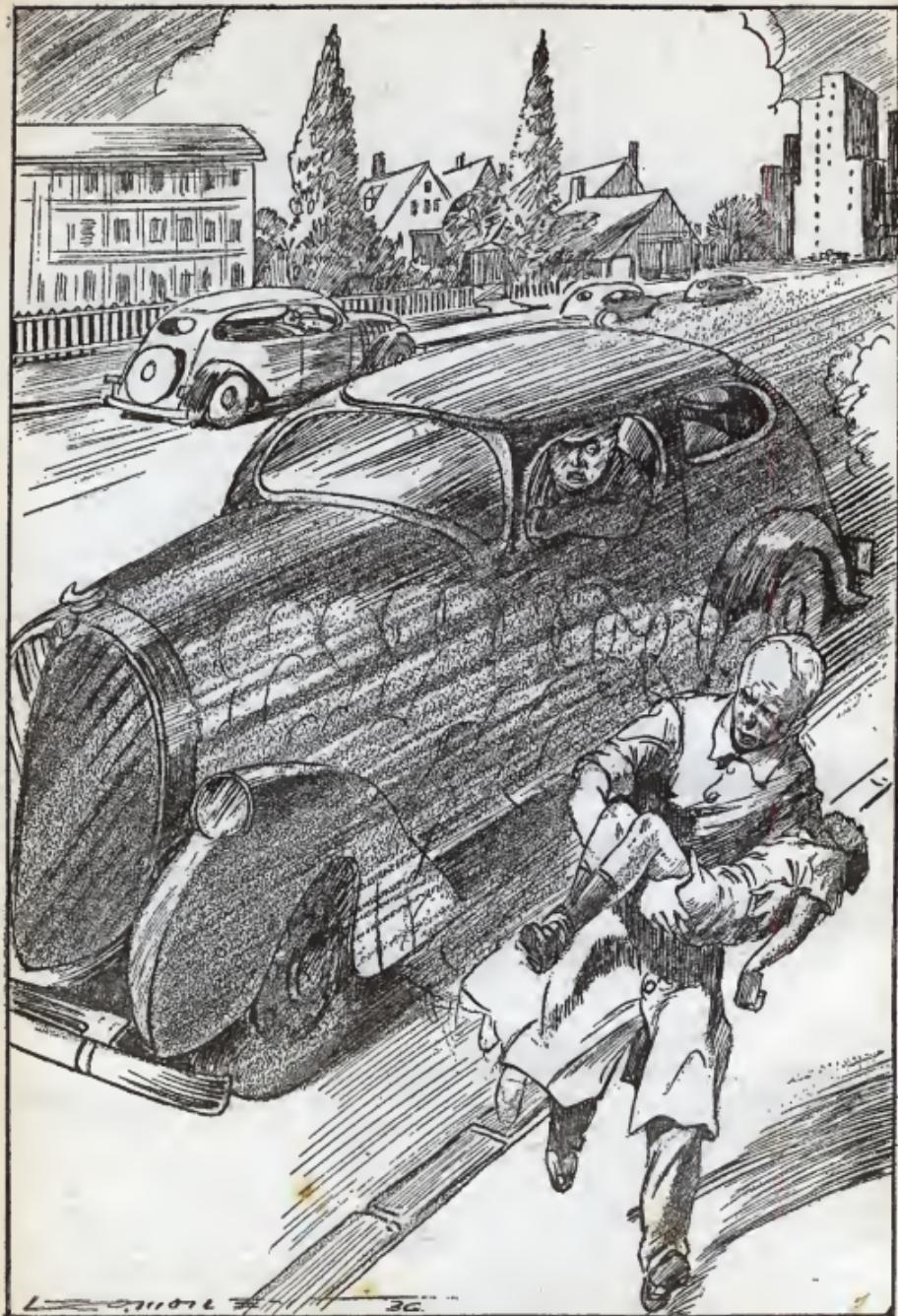
"I shouldn't think of charging you a fee under the circumstances," the lawyer replied kindly.

As the bowed little man walked out, the lawyer felt a surge of pity. In

front of him on his desk was the pad of notes he had taken of the Professor's story, and in his mind it remained still more vivid. There was the hard-working scientist driving his little Ford on a mountain road near the city, taking his wife and daughter out for an airing. This humble pleasure was about all that his absorbed and retiring life permitted. Then came Graw, the big bully, tearing around the corner at terrific speed in a huge car, blaring his raucous horn.

"Out of the way!" he roared holding his leering red face out of his window, as he perceived the Professor's little car in his way.

The lawyer could readily imagine that the timid little man was startled and disconcerted, and in his panic to get out of the way, got a wheel over the edge of the road; he could also imagine the brutal impatience of the big, coarse man, stepping with a snarl on his pedal and sending his huge car plunging by. It took a mere touch of the big car's fender to send the Ford crashing down the steep slope of the mountain. The big car roared on along the road, and the red-faced man never even looked back. Some hours later tourists found the professor sitting on the wreckage, repeating over and over the license-number of the car that had hit him. The dead bodies of his wife



The foot of space between the wheel and the boy remained unchanged, while he walked over, took the boy away, and set him down in his own front yard.

and daughter lay crushed under the wreckage. But no one saw the accident. There was no evidence except Dimmitt's recollection of the car number and his identification of Graw, the rich politician, as the roadhog.

"Funny chap," thought the big lawyer, watching the bowed and timid figure of the Professor retreating through the door. "Didn't rave and swear vengeance. Seemed to be studying intently over the thing, and murmured something about having to devise some sort of redress. Queer way to put it."

Out of the window he could see Professor Dimmitt walking slowly and thoughtfully past, along the sidewalk, his head bent down as though in thought. At the corner, a huge, red-faced man stepped out in front of him, as though he had been waiting there. His fat lips were rolled repulsively around a black cigar. He looked every inch a bully. Also, he looked like one of those people who are in danger of a stroke of apoplexy from a sudden fit of temper. He blocked Professor Dimmitt's way, and the latter had to stop.

"If you don't know me, I'm Graw," he said huskily with a coarse, slangy accent. Professor Dimmitt started, but said nothing.

"I want to tell *yuh* somethin' fer yer own good," the florid-faced boss continued. "Yuh bin to a lawyer, hey? Well, take my advice and fergit it. Yuh can't touch me. But if *yuh* bother me too much, I'll smash *yuh*, just like I've smashed bigger guys 'n you. Now beat it!"

He gave the little man a shove which sent him stumbling for several steps.

PROFESSOR DIMMITT thanked his lifelong scientific training. It enabled him to recognize with imper-

sonal detachment that anger on his part would do no good at this point. He recovered his balance and did not even look back at Graw.

"It's a problem, all right," he said to himself. "Just as hard as the recrystallization of radium-fluorescein. But, quite as amenable to solution on proper study."

He walked on, talking to himself.

"The man needs a lesson," he said to himself. "The big brute thinks he can commit murder and let it go at that.

"Well," he sighed wearily, "I'll have to take some time away from electromagnetic frequencies to get at this problem."

"Why, how do you do, Professor Dimmitt?" a cordial voice hailed him.

"Good morning, Mrs. Mathers," Professor Dimmitt said tonelessly, even though the large and cheerful lady in the blue suit was the wife of a fellow professor.

Mrs. Mathers pitied him. He looked so forlorn that even a tear glistened in his brown eye. She and Mrs. Dimmitt had been intimate friends before the latter's tragical death.

"Can't you come and eat dinner with us tonight?" she said. "Just informally with the family—"

"It is very kind of you," Professor Dimmitt said gently and firmly. "I understand your motive and am grateful to you. But I have things on my mind—"

"I know. I want you to forget," protested Mrs. Mathers.

"I'm not grieving. That is futile. I have work and plans. That is what I have to live for now."

Mrs. Mathers shook her head as she looked after the departing man. That might be the best balm for his sorrow, she thought. Some of the world's best work has been accomplished by

lonely, unhappy men. She was the wife of a scientist.

Professor Dimmitt was working on the preparation and purification of a chemical compound in which the sodium of sodium-fluorescein was replaced by radium. It ought to have some remarkable optical and physiological properties, he thought.

"We're near the end of our problem," he said to his laboratory assistant one evening a few days later. "It is rather thrilling, after these tedious weeks of detail work. You may go home now. I'll wait and watch this crystallize."

"I'll be glad to stay and help you, sir," the student said.

"There is nothing to do, thank you. Merely to watch the filtration. You can see the stuff tomorrow. Besides I want to think."

"Ah!" the young man exclaimed. He knew his chief. "You have a new problem on, sir?"

"Oh, of a sort," the Professor sighed. "There ought to be some automatic, direct way of punishing careless automobile drivers. The law is a joke. I ought to be able to figure out some sort of a device."

The assistant left, and Professor Dimmitt watched the drops come one by one from the end of the funnel. In the bottom of the beaker below it, beautiful iridescent greenish crystals were forming. Splash, splash, splash, went the yellow drops into the beaker. Through the open window came the rattle of the busy traffic from the street below, raised at this moment to its maximum pitch because madly racing homeward from offices and shops.

IT happened suddenly, unexpectedly. A puff of wind blew away the circular sheet of filter paper with which

the glass funnel was covered. Professor Dimmitt snatched at it quickly, but it eluded him. He leaned over the table a little too far, and his spectacles came off. They fell with a splash into the fluorescent green beaker. Several drops struck his face. In a moment his eyes were stinging painfully.

His heart gave a wild leap of fear. Both of his eyes had been directly struck by drops of the fluid. Its effect was totally unknown. It was a new substance, that the world had never seen before. Through his mind there flashed a vision of himself groping blindly through life for the rest of his years.

But the stinging cleared away promptly, and he found that he could see clearly. Nothing was wrong.

He felt immensely relieved. But, something *was* wrong. Just what it was, he could not at once recognize. He was under the impression that he had drawn his hand back some minutes ago, from where it had been outstretched, reaching for the flying filter paper. But there it was still, stretched out across the table. A little ahead of it was the piece of filter paper hanging motionless in the air, nothing supporting it. There it hung, steady, suspended, immobile. Before, it had been sailing rapidly floorward. Something was indeed wrong.

Next he found himself gazing fascinatedly at a drop of the yellow fluid, in the air, an inch below the lower end of the funnel. The little globule of yellow liquid hung there, like a planet in the skies, still and motionless in mid-air. It glistened as he stared at it but did not move. Then, as he peered intently at it for a long time, he noted that slowly, very slowly, it moved downward a little and drew further away from the lower tip of the funnel. Also, after many minutes,

he could see a change in the position of his hand which had been poised in pursuit of the filter paper. It was closer to him. Intent scrutiny showed that indeed it was moving, but slowly. Just about the speed of the minute hand of a clock, it had. He could not see it move. Only after he had watched it awhile, he could recognize that it had changed position slightly.

In front of him, across the table was the open window. He looked out. But he still saw the beaker and the funnel. That was eerie. He had moved his eyes upwards to look out of the window, but still saw the table-top with its glassware and his outstretched hand. It was many minutes of intense effort before his field of vision moved slowly across the table to the window and outside. Then, for a considerable while, everything was blurred and out of focus. Finally his astonished gaze rested on the street.

The whole scene in front of him, a busy downtown intersection, was paralyzed! Petrified! It looked like a street in excavated Pompeii, with everybody turned to stone. Crowded people were motionless, in the most grotesque of attitudes. Cars stood still. A messenger boy was rigidly balanced upright on a bicycle defying all laws of equilibrium. People seemed frozen in the most unnatural attitudes, walking with one foot forward at a queer angle, or balanced forever on one toe. Yet, traffic noises came to his ears, the roar and bustle of going-home time downtown.

He stood there and stared at the rigidly motionless street-scene out of the window, amazed. There were so many queer things to look at, policemen with poised arms, ladies balanced on the edge of a street-car step, newsboys with mouth wide open permanently, that he spent a long time look-

ing from one to the other out of sheer curiosity. After what seemed ten or fifteen minutes, he noted that the messenger-boy's pedals were vertical instead of horizontal, and the front rim of his bicycle wheel was some inches farther behind the mailbox.

PROFESSOR DIMMITT'S mind was such that he needed a solution for the phenomenon as promptly as possible. It was plain enough after a moment's thought. All external movement was slowed down. But the change was apparent to vision only. The radium-fluorescin had splashed into his eyes. He had expected this new chemical on theoretical grounds to be a metabolic accelerator. It had simply increased the perception-rate of his retina to about a hundred times more rapid action than normal. As a result, normal motion appeared a hundred times slower to his eye.

Now, what would the substance do if applied to all of the body cells, instead of to a small portion like the eye?

That question occupied him for some time with its thrilling possibilities so that he forgot to watch the grotesquely frozen street scene. He stood there waiting, wondering how long it would take for the substance to be eliminated from his retinal cells, and for the slowing-down effect to wear off.

This was a real discovery. There was money in it. It ought to yield profit, real wealth. And money, which had never appealed to him before, now meant an opportunity to crush Graw. Without money he was helpless. With money, and lots of it, he could get at Graw. He could expose the bully's brutality to the public; he could hire crooked lawyers and fight crookedness with crookedness. He

could break Graw. Or, he could fight brutality with brutality. Money would readily hire sluggers to give him the beating of his life. The thought of it was a pleasure.

It seemed to him that he stood there for hours. He had time to think out and prepare details for preparing sterile solutions of his new salt for intravenous injection, and a series of experiments on animals to determine its toxicity. He started to make some notes, but found that his hand moved so slowly that he could not see the movement; it was like the movement of mercury rising in a thermometer. He gave up the attempt to write, and went over his reasoning several times to fix it in his memory. Then he looked out at the immobilized street again, with the intermediate blurring due to the fact that the retina could see more quickly than the ciliary muscle could adjust the focus of his eye from near to far. The messenger boy was now a foot further behind the mailbox. A man in light gray whose feet had been far apart now had them together. But everything was motionless, frozen.

He began to be worried. He had read of persons who had tried a dose of *cannabis indica* having terrifying experiences from the effects of the drug. Was the effect of this thing going to be permanent? Would he have to drag through all his life this way, with this discrepancy between vision and action? Could a man in such a condition accomplish any work? He spent a good deal of time in uncomfortable misgivings, hours of it, it seemed.

But he began to see signs of beginning movement in the street. The wheels of a long, low car were slowly creeping round in a circle; the spokes actually moved. It was a weird effect as he stared long and patiently and

watched it slowly accelerate; wheels beginning to turn, people's legs beginning to swing. Cars and people began moving, past each other, and faster. Long after the scene had resumed its normal swift flurry, he stood there and wondered. Then he looked at the clock. It was 5:35. His assistant had left at 5:30.

BUT, he had something now! He knew that. Just a little more investigation, and he would put it on the market. Money would begin to come in. The thing had commercial possibilities, as a means of observation for testing rapidly moving machinery, judging and coaching athletics, studying efficiency in industrial movements—many possibilities. But it was pleasanter to turn his thoughts to wealth and powerful lawyers; to the power that money gives one over one's enemies.

So the animal experiments were quickly and satisfactorily accomplished and the dosage for human administration easily determined. One evening, just after his assistant left, he injected the proper sixty milligrams into a vein in his arm.

If he expected any transition sensation, he was disappointed. He felt nothing. There was no change in himself. None in the laboratory. He moved his hands and watched. The movements were natural. He walked about. That all went naturally. He looked out of the window. The street was again frozen. Rigid. Motionless. With the exception of the petrified street, everything else seemed natural.

But no; the traffic noise was absent. He listened. He heard a slow, rhythmic tapping interspersed with low, hoarse tones. It was sound, perceived by his ears a hundred times more rapidly than normal. Sound vibrations came

to his brain as though slowed down a hundred times.

He put on his hat and coat and walked out into the motionless street. He found himself walking around the rigid people as though among a vast grouping of statues. Rather they seemed like wax figures, lifelike but motionless. They were in the utmost variety of grotesque attitudes, like the unnatural high-speed snapshot photographs of horses jumping over gates or men diving. Expressions on peoples' faces looked all right at first glance. But they were fixed. They stayed that way. Like highly emotional stone statues. Professor Dimmitt stood within a foot of a man who gazed straight ahead, but showed not the least sign of being conscious that anyone was in front of him. He moved his hands about in front of the man's eyes. There was no change; there was the same rigid, queerly poised statue.

The motionless cars were queer. The drivers were strained, intent; their eyes popping out, their hands gripping steering-wheels—immobile. He leaned into a car and looked at the speedometer, and repeated it several times. Twenty, thirty miles, they showed, as he stood on the ground, rested a hand on the door, and leaned his head in. The occupants retained their frozen expressions and showed no consciousness of his presence.

He walked about, like an explorer in an ancient city which had been frozen or petrified ages ago. He seemed to be the only man alive. He went into shops, where there were goods on counters. As he walked past trays of jewelry, he realized the possibilities for crime that lay in his invention. As he thought of his own eagerness for wealth he shuddered, and hurried out. He was excited.

He walked to cool down his excite-

ment. He left the downtown district behind, and walked first among apartments and then among residences. Everywhere, people and automobiles were motionless, and there was silence except for the tapping. Children were poised in rigid attitudes, with no change in position during the period that it took him to pass out of their sight. The sight of them affected him deeply. Children ought not to be caught up in this business. A pang gripped his heart as he thought of his little daughter crushed under the wreckage of his car.

Then he was startled to find himself walking down the street on which Graw lived. There was Graw's house a half a block away. There was Graw's fat, insolent, five-year old son out on the lawn. The unconscious mind plays odd pranks with the body in which it lives. Unconsciously, Dimmitt had realized that his accelerated state gave him a vast power over other people. It was a simple step in his unconscious reasoning to Graw, the man over whom he most desired power. Unconsciously his footsteps had turned that way.

In the street were several motionless cars. One was in the act of turning into its garage. It was the coming-home hour; men were arriving from downtown and dinners were being made ready. And there, on the boulevard was Graw's long green Pierce-Arrow car. In it sat Graw, hunched over the wheel, head forward, hands tight on the steering-wheel. It was a perfect picture of frozen speed.

“A T it again!” thought Dimmitt. “Laws mean nothing to him.”

He walked over to look at Graw's speedometer.

Dimmitt's heart hardened as he saw that the instrument registered fifty-

five miles per hour. That was an unreasonable rate on a city street, with children running about. It was not only reckless; it was criminally dangerous. Graw was wont to defy everybody and everything. Dimmitt's timid nature suddenly rose up in anger and determination such as it had never known before.

He acted quickly. He walked over to Graw's front yard and picked up the man's young son. He carried the boy out in the street and set him on the pavement, twenty feet ahead of Graw's big, green car. He figured that this distance was sufficient to permit Graw to see the boy clearly, but not sufficient to enable Graw to check the speed he was making, and prevent the car from running over the boy. If he were not breaking the law, Dimmitt said to himself viciously, he would be able to stop perfectly well within that distance.

Then he stood behind the boy and waited. He took care to stand perfectly motionless, because he wanted Graw to see him. The reason that people could not see Dimmitt in his accelerated state, was that he moved too fast. He was just like the spokes in a flying wheel; he moved so swiftly that they could see right through him.

He waited many minutes. He could not see the car move toward him, but after a long wait, he could see that it was a foot ahead of its original position. A change had begun to creep into the expression of the red-faced man at the wheel. The eyes began to widen. Dimmitt had plenty of time to think. Graw would see him there behind the boy; and he would at first think that Dimmitt was sacrificing his own life to get revenge. But that kind of revenge was not sweet enough for Dimmitt. He would have to let Graw see him afterwards. Such a meeting had

dangers, but the details could be planned later. He switched his mind from planning them. It was much more gleeful to contemplate Graw's discomfiture at not being able to produce witnesses, at having no legal redress. No one would believe such a wild tale; that the Professor had dragged his boy in front of the wheels of his car and then escaped himself and disappeared. They would think Graw was crazy. Dimmitt would bow politely to him at that point. Also, he ought to ask for police protection, but that was also a detail to be settled later. The present occasion was too satisfactory to miss.

AFTER many minutes (long periods of waiting, anyway), he found that the car was another foot ahead, and that a stare of horror was gradually taking shape in the bloated red face. The big, fat body seemed to lean back more, as though in the act of raising a foot to a brake pedal.

Dimmitt gloated. Graw had seen the child already! Dimmitt looked down at the child, who was still in the same position; and then up at his father's cruel face, the terrified expression on which now delighted Dimmitt's heart. After all, there was something of the primitive human animal, even in the highly cultured little professor. This was atonement for the loss of his wife, child, and car. More and more the foot was poised toward the brake, though no actual movement was visible. It was interesting to figure proportionate distances: the distance which the foot and the brake had to move, the distance the car had to go, the time which it would stop, the time in which it would go the remaining seventeen feet.

Dimmitt could also see that the steering wheel was deflected to one

side, but not yet enough even to take up the loose play; it would be ages before the steering mechanism engaged the front wheels, which were still headed straight to the front, toward the child. The color of Graw's face was less red than before. Pallor was beginning to appear.

Dimmitt shook his fist at the big man and shouted:

"Ha! ha! Big brute! How do you like it? You can see me, can't you? The helpless little Dimmitt, whom you crushed?"

Dimmitt was forgetting that he was a scientist, in the savage glee of his revenge. It did not occur to him at the moment that his voice was pitched in vibrations one hundred times higher than the normal human voice, which would make his gibe such a high squeak that ears as human as Graw's could never hear it.

By this time the expression of horror was thoroughly established in the big man's face. His complexion was so pale that he looked like someone else. Desperately his foot was reaching toward the brake pedal and his hands tugged sideways at the wheel.

Dimmitt was losing his professorial dignity. He was astonished to find himself jumping up and down in front of the car, and gibbering like a savage doing a war-dance. His joy at the triumph over his enemy overpowered him. He went into a frenzy of excitement; he yelled and executed a wild, furious dance.

For hours, it seemed that he danced, and all of the time, the car crept closer and closer to the child. As Dimmitt danced and yelled taunts at Graw, he noted that the child was in a half sprawling position. The front wheels had begun the slightest swerve. In the back of his mind, as he kicked his heels together, Dimmitt was able to

plot the curve on the pavement, and figure that the huge seven inch tire would just about pass over the child's hips. A plaintive, weeping expression had appeared in the child's face by this time.

He stopped a moment. Perhaps it was physical exhaustion. The wild dance was fatiguing, for he was not accustomed to much exertion. He panted; and he wiped his forehead with his handkerchief. He sat down on the curb to rest.

The child's face had a most piteous expression. The heavy tire, with the three tons of metal behind it, was perhaps five feet away from the child. The horror of the impending juggernaut crashing down on him, was reflected in the boy's eyes. Anyone who could have resisted that, would have been made of stone. It was almost instinctive, seeing a human being under approaching wheels, to snatch him out from under them. One did it unconsciously. Professor Dimmitt gradually recollected himself.

"This silly business won't bring back my wife and girl," he said to himself. "And I'm making a big fool of myself."

He determined to get the boy out of the way, put him back in the yard, and forget the whole business, before it was too late. Who wanted the murder of a small boy on his soul? He looked again at the boy and the car.

He was horrified to see that the car was perceptibly moving, creeping toward its tiny victim. He started to rise briskly, from his seat on the curb, to pick up the boy, but found that his motions were laggard. It was difficult to move. It felt like trying to move in a frustration-dream. The accelerator was being eliminated. He had been a long time away from his laboratory. Its effect was passing off.

He made a desperate effort. His muscles, sore from his unwonted exertion of a moment ago, creaked with the work into which he urged them. He found himself progressing toward the boy at a very slow walk.

His mind was still working. He looked ahead. The car was four feet away from the boy. He also was four feet from the boy. His own motion, compared with that of the car, was certainly no faster; and was rapidly becoming slower.

He was too late! The sinking sensation overwhelmed him that he had started this, he could not prevent its occurring, and he would be forced to stand there and witness the revolting act of madness that he had planned, at a time when he was not himself. Why, the huge car would crush the boy flat to the pavement, no thicker than a pancake. There would be blood, and crunching of bones, and perhaps his metabolism would be slowed down enough so that he could hear the boy shriek. A bloody mass would be picked up off the street and carried away.

And, horrors! He would be found there, right beside the spot. How could he explain it? Graw had seen him behind the boy. Now here he was. In a few moments there would be plenty of witnesses. He would be tried and hanged!

The professor swayed with weakness.

However, his methodical mind did not desert him. Repeatedly he had reminded his students, during the course of a lecture, that if they found themselves in a serious emergency in which their time was limited, the best thing they could do toward solving it efficiently, was to sit down and spend half of the available time in thinking. He stopped his panic just as we shut off a light with a switch. He closed his

eyes, and began to reason a way out of the pickle.

THE first thing that occurred to him was that the saving of the little lad's life was the more important of his problems. What became of him mattered less. He opened his eyes again, and the looming, bulging tire of the front wheel was only a yard away from the little fellow's hips.

The came the thought that when he had given himself the injection he had held the syringe in his hand a moment. What had he done with it? He looked down at himself. For the first time he noted that he was still in his gray laboratory smock. Desperately he reached into the pocket. There was the syringe, needle and all. The drug had acted so quickly that he had not had time to think; unconsciously he had put it into his pocket.

He took it out and looked it over. It was empty! And the supply bottle from which he filled it, stood on the work-table in the laboratory.

But, no, it was not empty. The tube was large, and still contained some of the solution. There was a thin layer of the yellow stuff between the end of the plunger and the bottom of the barrel. This amount in a 10 cc syringe, might be considerable. The effective dose, sixty milligrams, after all, was a small amount. The only remaining problem was how to get that small amount out of the syringe.

Simple, if you went at it step by step. By rinsing it out with blood from his vein. His sleeve was still rolled up from his first injection. He plunged the needle into the vein, and drew out the plunger. Now he had to wait, because the blood flowed in slowly. He glanced up at the boy. Another foot had been lost. It seemed that the huge car was upon him!

Again he looked down so that he could not see it. The syringe was full of dark, venous blood. He forced it as hard as he could back into the vein, drew out the syringe and dropped it on the pavement, holding his thumb over the site of puncture. Then he desperately turned his eyes toward the boy, who somehow seemed to him doomed.

Slowly the tire crept toward the little body, which also slowly moved. In fact the movements were more rapid than a moment ago; he could see the tire revolve, and its heavy black tread descend slowly toward the boy. Then, suddenly, a foot away from him, it stopped, as though suddenly paralyzed. Again, everything was frozen, solid, motionless, rigid.

Dimmitt drew a deep breath. The accelerator had worked again. The foot of space between the wheel and the boy remained unchanged, while he walked over, took the boy away, and set him down in his own front yard. He himself hastily departed from the scene, fearing that the small dose he had taken would not last long, and he did not want to be found anywhere in the vicinity.

He felt a sudden grateful peace within himself as he headed back toward his laboratory. He had not felt this way for many weeks. All ideas of revenge were gone.

"Foolish way of sapping one's powers by emotional indulgence," it now appeared. He was through with it. He had shed it like an old garment. Now he was in a position to devote his full strength to research, with no thought of money.

He felt exalted as he hurried through the petrified streets, where everything looked precisely in the same positions as it had been when

he had started out. A lady in a red coat and cap was still standing at the curb waiting for a chance to get across the street. A very young student still stood with a match to his cigarette.

Dimmitt went into the laboratory, where he lay down on a cot. He was trembling from his emotional conflict, and he was exhausted from his physical effort. He forced himself to relax with his eyes shut.

He was aroused by the noise of the traffic from without. Going to the window he could see the busy street swarming and whirling again. The clock said 5:40. The whole thing had taken ten minutes. He felt tremendously exhausted, and lay down and rested again.

It was late in the evening when he approached his lonely apartment. But he had a feeling of peace on earth, good will toward men, which even included Graw. He decided to regard Graw as an unfortunate accident of Nature that could not help being what it was. He could treat him charitably the next time they met. He regarded himself as the bigger man, now.

A newsboy was loudly bawling an "Extry" up the street, as though he would wake the dead. Dimmitt was usually not interested in "Extrys," but something in the boy's incoherently bawled quotations from the headlines struck a chord. He bought a paper.

"BIG BOSS DIES OF STROKE" the headlines said. "Mike Graw, prominent contractor and political leader, succumbed to a heart attack today at 5:30, while driving his car, and within sight of his home. He managed to stop his car, but was dead when reached by a passer-by who saw him fall out of the seat."

Beyond the Stratosphere

By WILLIAM LEMKIN, PH. D.

Reading the concluding installment of Dr. Lemkin's story of the stratosphere, we see more of his little friends Red and Green, as he calls them, and learn of their fate and of the end of the journey of the adventurous travelers.

Conclusion

WE soon realized that we had no conception whatever as to the direction in which our ship lay. So many things had happened since we had emerged from the space flier to face the assembled cube creatures back there at our landing spot. We had journeyed to the site of the rocket dismemberment, and thence to this city of the plain. We had wandered about aimlessly for hours, and our sense of direction was completely awry.

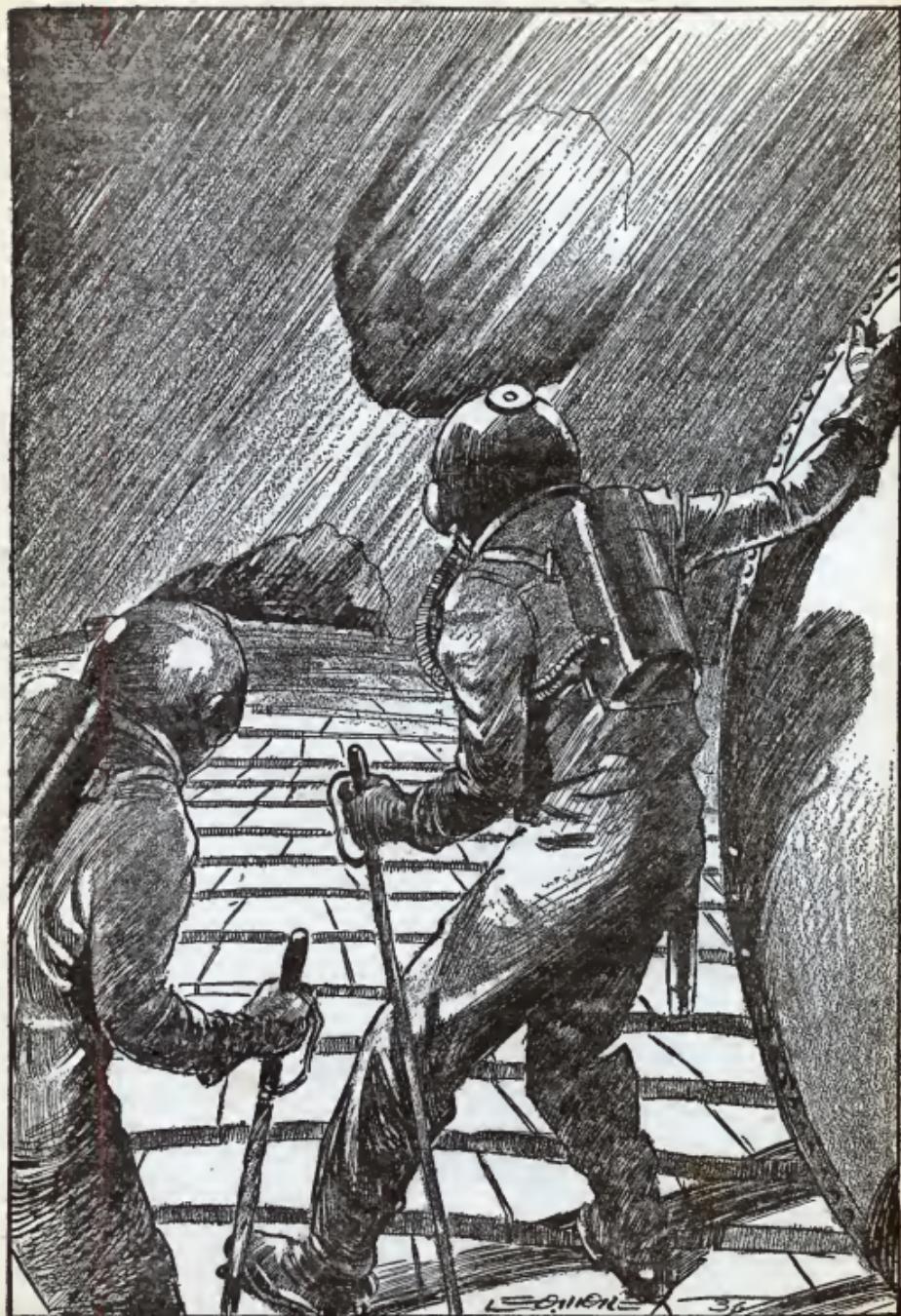
Our bewilderment and increasing discomfort were plainly evident to the native organisms that eddied about us. Suddenly we espied our friends *Red* and *Green*. Bob waved to them and I joined the signaling. They pushed their way through the throng and presently were at our side. Brave fellows! . . . and what intelligence too! . . . We signaled our plight to them as best we could. I'd be willing to swear that they seemed to grasp the situation without any difficulty. The answering motions of their luminous tentacles replied as directly as could words—at least it looked that way to poor harassed Bob and me. If *Green* and *Red* had been present at the dramatic incident of the ground slabs, then they could readily have seen what we were aiming at; and could just as readily see what we desired most right

now—shelter from the scorching sun. Whether or not they had been present then, they most certainly comprehended our situation now. There was no mistaking that flash of intelligence in their pink headlights.

The two fellows turned to the rest of the crowd and engaged them in vigorous conversation. Bob and I sagged against each other weakly, awaiting developments. Soon the confab was ended. Our two chromatic friends joined us again, one on each side, and beckoned us to march. We marched. And the entire flock of cube men came trooping after us.

Red and *Green* knew just exactly where we wanted to be taken. We thanked a kind Providence for sending us two such intelligent creatures. On we tramped, with our guides beside us and the entire entourage trailing along behind. We reached the valley containing the dismembered rocket hulks, skirted it, and soon left it behind. Over ridges and through gullies, up and down over the undulating surface of slabs . . . slabs . . . nothing but slabs . . . My senses were beginning to reel, my steps faltered. The stifling heat was now well nigh unbearable. I felt Bob catch up my sagging body. I rallied somewhat and staggered on. And then . . .

There was our space flier, lying just where we had left it. We stumbled



The shell surface seemed to open up for a split second, and then close again instantly, to swallow the fragments without leaving a trace.

along, with my friend now half dragging me most of the way. Ages seemed to elapse before we reached No. 43. The escorting creatures stood by deferentially, with *Red* and *Green* at the head. More ages struggled by while Bob fumbled with the door mechanism. All I could do was to lean feebly against the side of the vessel and gasp for breath. The hatch was open at last. We stumbled in, with a last grateful wave to our escort. Once through the inner door panel I tore at my helmet and space suit and flung it far from me. Bob wasn't wasting a moment in doing likewise. We sank onto a couple of seats and gasped for breath.

"Whew, this is a relief!" panted my friend, as he mopped a dripping brow. For the moment I hadn't enough strength to utter a word. All I could do was fan myself weakly with nothing more effective than the palm of my hand.

"I don't see how we could have stood that withering heat much longer," said Bob. He threw his head back, stretched out his legs and relaxed luxuriously in the refreshing coolness of the ship's interior.

"Darned if I know how *they* stand it!" I found my voice again, although a pitifully weak one. "Doesn't bother them at all." I jerked a finger at the nearest window. Luminous knobs were swaying against it, and varicolored cubical masses were pressed close to the transparent surface. The other windows had their quotas of native organisms. Were they waving cheery greetings to us? Were they expressing their regrets at the extreme discomfort which we were experiencing in their cherished climate? Were they offering apologies to us for that bit of momentary harshness to us in connection with the dislodged ground plates? Whatever their message was,

it certainly was not one of hostility.

We waved back cheerfully—if a trifle weakly. One by one the creatures dropped away from the windows. The last to remain were our trusty guides, *Red* and *Green*. They held on for a last lingering look together, and then, with a final wave of their appendages, they slid smoothly out of sight.

A FEW hours of refreshing sleep in the delicious coolness of our ship's quarters worked wonders for both of us. With all the exciting things that had been happening to us ever since we had put foot in this bizarre region, the thought of food had left us completely. It now came back to us almost simultaneously, and with an unquenchable urge. We dined (maybe it was *lunched*—or was it *breakfasted*?) with extreme gusto.

"It all seems like a 'dream,'" I remarked, exhaling vast clouds of cigarette smoke into the confined area of the chamber. Bob was lolling on his bunk, likewise erupting billows of smoke with luxurious abandon. Thanks to our efficient air purification system the atmosphere within the compartment was maintained in a fairly breathable condition. After the recent long spell in the stifling confinement of our space helmets, almost anything in the way of atmosphere was acceptable.

"Well, Earl, dream or no dream, here's something that's *real*!" Bob rose from his reclining position. He glanced first through the nearest window. I followed his glance. A handful of waddling creatures were in sight, moving about aimlessly at a distance from the ship. None were visibly close to us. Bob nodded with an air of satisfaction, and hastened over to the corner of the room where he had flung his space suit. He fumbled about for

a moment and from one of its pockets he hauled forth an object. He brought it out into the light, keeping over to one side of the room, so as not to be visible through the windows. He held it up. It was a small slab of ground substance:

"I managed to pinch it while no one was looking," Bob whispered, glancing about apprehensively, as though momentarily expecting that lightning-like blow that had tumbled him over in so undignified a manner back there in the city of the plain. The contraband object was about four inches square and about two inches in thickness. Bob turned it over and over between his fingers. He held it up toward the single bulb in the ceiling, rotating it slowly first on one axis, then on another. I watched with extreme fascination. Now the bulb's rays burst through clear and strong; now they were blotted out from view. The fragment exhibited that same mystifying one-way transparency that was characteristic of all the slabs which we had tested so feverishly back on the plain.

Bob studied the material minutely. "Look, Earl," he remarked, "how crystal clear it is in this position . . . and also in this position . . . in fact whenever the light is shining down on its upper surface, no matter at what angle. And now, edgewise . . . no, it's totally opaque, just as opaque as when I turn it over completely and let the light hit the side which was underneath before. So it looks as though this stuff, if it were in the form of a cube, would be perfectly transparent when the light hits only one of its six faces. A darned peculiar substance . . ."

I agreed with Bob. It certainly resembled nothing that either of us had ever seen on earth.

"And notice this Earl," he continued. He held the material for a minute or so close to the surface of the small electric heater built into the wall just above the floor level. He removed it momentarily, and then brought it back again to its position near the heater. The warming rays burst forth to my outstretched palm with unvarying intensity, regardless of whether or not the substance was interposed.

"Showing," added Bob, "that the stuff is just as transparent to *heat rays* as it is to *light rays*, provided the rays strike on the upper surface, or rather the surface that was on top when I picked it up from the ground."

"And now, getting back to the matter of *light* once more," Bob went on, "this material, even in its perfectly transparent position, doesn't follow the common behavior of transparent substances . . . it doesn't *refract light*." He held the small slab down against the page of an open magazine. The type stood out boldly and clearly through the two-inch thickness. There was none of the customary distortion and bending of the light rays that is evident when one looks through a refracting plate of glass.

I took the extraordinary substance in my hand. Although I had picked up and examined half a dozen or more slabs back in the cube men's city, I was struck for the first time by its unearthly lightness. "It weighs much less than the lightest wood I've ever handled," I mused. "And look, Bob, it's not the least bit porous . . . as solid as a chunk of metal."

"Let's try a simple specific gravity test," and Bob procured a can of water. I dropped the substance into it. The slab remained afloat high and dry. "Holy smoke!" exclaimed Bob. "It's flat on the surface of the water, with practically none of it submerged."

And to be sure, the slice of ground material rested on the water as though the latter were frozen solid. It floated in much the same manner as a block of wood would float in a dish of mercury.

"Then its specific gravity," guessed Bob, "must be in the neighborhood of *point zero zero something* . . . I should say that in its relative weight it more nearly resembles a *gas* than either a *solid* or a *liquid*."

At this moment a sudden scraping noise on the surface of the ship halted our experimentation. Bob hastily snatched the telltale specimen from the can of water and concealed it under a sheaf of sky maps on the table. Several gelatinous bodies appeared at the window over our heads. Among them we recognized *Green*. The creatures waved cheerfully at us. We waved back with equal cheerfulness.

"They must be extremely anxious about our comfort," said Bob.

"Or else very suspicious of our movements," I added sententiously.

Again the cubical organisms slid from view, and we relaxed. Bob carefully hid away the smuggled slab in one of the wall lockers. We resumed our smoking in profound contemplation. Bob broke the silence after a few minutes—and he broke it with a bang.

"I've got it, Earl!" he exploded, and he leaped from his seat and leaned toward me eagerly. "It's as clear as day!"

"It's as clear as mud to me," I puffed, my mental processes working with their habitual slowness, I must confess.

"From the moment that we landed her," continued Bob, "I had a sort of sneaking notion about the correct explanation of this whole mysterious business. My ideas have been clarifying themselves right along during all

our activities and in our so-called adventures around these parts. And now I guess I have it all pieced together, just like a jigsaw puzzle. Here's the way I see it:

"This region must be part of a vast layer like an eggshell that encircles the earth at the outer limits of the atmosphere. This shell is composed of an extremely light and perfectly transparent material. How thick this shell is, I have no way of guessing. But it cannot be very thick, because the six rocket ships, and then our own, burst through without any great difficulty, or any serious damage to themselves. How this layer of matter ever came to be formed here I won't even attempt to guess. But it's here—no doubt about that. And its one-way transparency makes it completely invisible from below. That's why the existence of any such shell has always been a secret. Astronomers for ages have looked at it and *through* it. They've made all kinds of observations about the planets, stars, constellations, galaxies and other celestial phenomena without for a moment suspecting that any thing lay as close to the earth as this shell. Now how does the whole story strike you, Earl?"

"Darned clever explanation," I admitted. "But let's look into it a little. What does the earth get from outer space? First there's the light and heat energy from the sun. No doubt, these rays break through the thing you call a shell without any trouble. I guess your recent tests prove that matter conclusively. Then there are the cosmic rays. What about them?"

"Well, if the cosmic rays originate somewhere far away in outer space, then they certainly are able to break through the shell, because they are easily detectable on earth. Whether they penetrate with their full inten-

sity, or whether they lose something while passing through is another story. I won't venture an opinion."

"But wait, Bob, here's something you can't get away from. What about meteors? Everybody knows that they fall through space and become luminous when they strike the earth's atmosphere. Which means they first have to break through the shell, eh?"

"I'VE been puzzling about the question of meteors, and I guess that's the only explanation. They must plunge through the comparatively thin shell and continue their drop without any great reduction in speed. My guess is that this shell material offers very little resistance to an object passing through it. After all, Earl, there are the space ships that came sailing up from below. Do you remember the sensation when we hit the shell? Like flying through a layer of soft cheese, wasn't it?"

"But, if the meteors fall through, there must be some holes or openings left by their passage. That's logical, isn't it, Bob?"

"Logical enough, but I'll admit we haven't come across any yet. Still, Earl, we couldn't locate any hole made by our own passage through, nor any caused by the other rocket ships. Maybe this peculiar ground material has a way of folding back again and covering up any opening made by a body shooting through. By George, anything at all is possible here! Now take for example this question: What holds up this thin shell of matter at a distance of 130 miles or so from the earth's surface? Why doesn't it come crashing down like a house built of cards? All we can do is guess. This stuff, being so extremely light, doesn't need a very great force to keep it up. Maybe it's some mysterious back-pres-

sure from the earth's atmosphere, or some ingredient in it that balances the weight of the shell. Maybe it's tied up with the rubbery material itself—some anti-gravitational effect or something I'm sure I don't know, Earl."

"Well, Bob, I've got to admit that your explanation, even though it sounds like a fantastic pipe dream, seems to be a mighty good one. I'll be darned if I'm not beginning to believe it myself. It certainly fits in with all the observed facts. And now about these cube creatures. They deserve a word of explanation too, don't they?"

"A mighty interesting and curious form of organic development is what I'd call them. They probably have evolved through countless ages to their present form. No doubt Nature has discovered that this particular physical state must be ideal for carrying on life under the peculiar conditions existing here on the shell."

"I'd say that these beings have a pretty tough time of it, even at best. There is first the absence of any atmosphere. Then there is the problem of water . . . have you seen any yet, Bob? I haven't observed a trace. Goodness knows what they use for food. Furthermore, there are the terrible extremes of temperature which they must endure. And then what of the murderous pelting they must get by the cosmic rays that are constantly striking their unprotected shell? And last, but by no means least, have you considered what even a moderate meteor shower would do to them? They must be bombarded by hundreds of meteors every day . . . and not a chance to protect themselves as far as we've been able to see. At least we on earth have our atmosphere which acts as a blanket to shield us from the effect of meteors. But these poor shell

people must be a constant prey to them. By the way, I wonder, Bob, why we haven't seen any meteors yet."

"Fortunately this particular time is not one of very great meteoric activity. Even so, there must be plenty of those visitors from the skies raining down upon the poor inhabitants of this eggshell of matter. I suspect that if we stay around much longer we're going to encounter some of them sooner or later. Yet, in spite of the apparent danger to which the shell natives are exposed, I'm willing to wager that they have discovered some means of protecting themselves from meteors."

"Whichever way you look at it, they're a remarkable race. Think of their advanced intelligence, the mastery of tremendous forces by means of their powerful bulb attachments. Think of their methods of communication. I even believe they are able to read our thoughts. Their progress in scientific development must be considerable. We haven't seen any of their achievements along those lines yet, but there certainly must be evidences. Just consider how neatly they dismantled those six ships. And remember their curiosity as to how the rocket mechanism worked. We've got to admit, Bob, that they're a mighty remarkable people."

"I wonder what their reaction was to this sudden invasion from below. After all, Earl, just consider how our people down on earth would take it if a number of queer objects would suddenly shoot up from beneath our feet in the way that our ships did up here. No doubt the local inhabitants must believe that their shell is solid—that is assuming that this thing we're standing on is not a mere fragment in space, but a continuous unbroken shell extending completely around our

earth. Certainly they have no conception of an entire planet swimming in the centre of their shell."

"Swimming is the word, Bob. And it just occurred to me . . . the shell must follow the rotational motion of the earth on its axis, because we have the same succession of sunrise and sunset, with about the same intervals of day and night as on earth—although, with the lack of any atmosphere you wouldn't exactly call the period when the sun is visible *day*, would you?"

"I wouldn't be at all surprised if the cube people are so far advanced in science that they actually know as much astronomy as we do . . . maybe more, because they have so much of a better chance to view the heavens than our earth-bound astronomers have with that thick blanket of atmosphere always in the way. Very likely the shell inhabitants are familiar with the solar system, in fact they may believe their territory to be the planet that we have always known as the third from the sun."—

"By George, the thing sounds more fantastic the more we analyze the whole matter. Yet undoubtedly it's all as true as gospel truth itself."

"To me it sounds like a Jules Verne story. I remember reading a tale written by him about a trip made to the centre of the earth . . . do you remember it? It told of a journey through an extinct crater in Iceland and the discovery of a vast world lying below in much the same manner as our own earth lies below the shell upon which we now are."

"Yes, I remember the story well. That exploration trip was a sort of reverse procedure from our own."

"Talking about *reverse*, what about this reverse transparency up here? That's probably the most puzzling fact

in the whole puzzling situation. I guess you've heard the story about the new maid who cleaned the windows thoroughly on the inside but purposely left them dirty on the outside so that those snoopy kids next door couldn't look in. Well, here we have just what that good servant girl was striving for . . . one-way transparency."

"I wonder if the shell people are aware of this peculiarity of their ground substance? Perhaps they do know about it, which may help to explain why they were so thoroughly against our tampering with the stuff."

"And another thing: The ground may be perfectly transparent, and therefore invisible from below, but how about the creatures themselves—do they follow the same rule of directional visibility? Because if they don't, then they should be visible from the earth through telescopes. Isn't that so?"

"Quite right, the only way to find that out is to try looking at one of them from below. I dare say we'd find the same one-sided transparency. But even if we didn't, remember that the individual creature, himself, is nothing more than a blob of colored jelly, which is nearly transparent. And, at this great distance from the earth, even the most powerful telescope wouldn't be able to detect him—or even a large number of them grouped together."

"Well, if the shell men are not visible from below, how about you and me? We certainly must stand out clear and bold against the sky."

"Yes . . . like a couple of minute specks, perhaps . . . that is, if those on earth knew just where to train their instruments."

"And how about the rocket ships that are up here with us? They should

be even more distinct than we are, shouldn't they?"

"Right! . . . provided again the telescopes were pointed straight at them. However, considering the great distance, and the comparative minuteness of ourselves and the space flyers, I don't think we stand much chance of being spotted."

OUR conversation rambled along in this manner for what might have been several hours. We had no conception of the flight of time. The sudden discovery of the probable state of affairs, together with all the mulling over of notes and assorted data, and the general coordination of observations, theories, conjectures, facts and near facts occupied our attention to the exclusion of everything else. We might even have forgotten the group of cubical organisms patrolling the vicinity of our ship, if it were not for an occasional glimpse of them through our windows.

There was no use in our venturing out again in the intense heat of the sun. We lounged around, ate again, took turns at napping, then continued our discourse of which there never seemed to be any end in sight. The whole series of phenomena was too wonderful and too mystifying to be dispatched in anything short of a solid week of discussion, we thought.

Our plan was to emerge once more after the sun had set, and the outside temperature was more bearable. By that time we had taken stock of our situation pretty thoroughly, and had determined on some concrete plan of action. Our chief aim must now be to learn as much about the shell and its inhabitants as our limited stay would permit. We must at the same time make an effort to repair the ship so as to assure us a means of return-

ing to earth. As to our supplies of food and oxygen, they were sufficient to keep us for several weeks if necessary. We determined to take full advantage of the time at our disposal to explore the shell, either on foot, or, better yet, by means of the rocket ship, if we could repair the latter. Bob even mentioned the possibility of putting one of the smaller flyers in shape and using that for reconnoitering expeditions. Of course, we agreed, that was contingent on how much fuel we could manage to scrape together from the tanks of all the ships. Unless there was an abundance of benzite we could not afford to waste any. Our return trip was of paramount importance.

Before we left the ship again we tried something that we hadn't attempted yet, namely to establish communication with the earth. After all, we had completely forgotten that when we took off from the earth's surface we left behind us an ocean of suspense and expectation. Throughout our climb into the upper atmosphere, we had maintained an interrupted contact with the New York station of Stratosphere Transport. Then came our dramatic burst through the shell and into this new world. Communication had ceased abruptly. And now there must be a seething turmoil down below as a result of our disappearance into space. Or else, perhaps Bob and I had already been accepted as martyrs in the cause of scientific progress, and had been by this time crossed off the records.

An investigation of the condition of our radio apparatus soon blasted our hopes. I discovered that the transmitter had been badly damaged by the initial impact of the ship. Although there was a possibility of effecting some makeshift repairs, we soon realized that they would take time.

"Just think!" said Bob with deep chagrin and disappointment. "Here we are at a distance of 130 odd miles from New York—closer to the big city than if we were in Albany—and we're as isolated as though we were on the surface of the moon."

"There must be *some* way," I replied thoughtfully. "Some method by which we could let our friends down below know we are safe and inform them of our discoveries up here on the shell."

"There's one way," suggested Bob. "If we knew that the shell was not too thick, we could dig a hole and drop a message."

"That's an idea," I returned with enthusiasm, "provided we could do it without letting the cube people catch us at it. You know how they feel about our molesting the surface of their ground." My enthusiasm slowly ebbed. "It doesn't look as though we'd have much chance of accomplishing that—those creatures seem to be right on our tails morning, noon, and night." I glanced through the window at the cluster of gelatinous creatures maintaining their patient vigil very close by.

After sundown Bob and I donned our *tungstone* suits and helmets and emerged once more into the realm of the shell men. Curiously enough, their numbers had dwindled considerably during the time we had been sheltering ourselves in the space ship. A mere handful of them were there to greet us as we hopped out upon the rubbery ground. And among them, to be sure, we singled out the ever-present *Red* and *Green*. These two creatures appeared to act with some sort of authority over the remainder of the group.

"I guess our two friends have succeeded in getting themselves appoint-

ed commanding officers in our bodyguard," laughed Bob. He waved a cheery greeting to the group, and we received an equally cheery response from *Red* and *Green*.

Bob signalled to them that we desired to be escorted back to the scene of the rocket ship dismantling, for our first consideration was a speedy repair job on our vessel. I must admit that Bob's method of conveying this message was indeed crude—I'm sure that my own would have been no better. However, our two friends seemed to comprehend instantly, and started off in the proper direction at a pace as swift as was commensurate with their waddling motion. Bob and I followed hurriedly. The remaining shell creatures took up the rear.

"A pair of first rate helpers." I remarked. "If ever we need the services of a couple of loyal and intelligent assistants we can depend on them. I'd even be willing to bet that, in their attachment to us, they could stop at nothing, even if it were in opposition to the will of the rest of their countrymen."

"We may yet find them to be of vital importance in the working out of our plans for the immediate future," said Bob with deep significance. He did not make any effort to amplify his cryptic statement. The matter was dropped for the time being, by reason of a sudden development that burst upon us with dramatic swiftness and intensity.

We had put barely a quarter of a mile between the ship and ourselves, when the escorting group of cubical beings stopped dead in their tracks. There was a momentary flashing of their luminous appendages, a nervous, uneasy swaying of pink bulbs, as though they detected an unspoken warning of danger in the space about

us. *Green* and *Red* appeared as frightened as the rest.

We halted abruptly and glanced about fearfully. What new manifestation was to be expected in this strange region of the unexpected?

"Looks like something is going to happen," muttered Bob grimly—"and real soon too!" We clung close to each other and waited . . .

We did not have long to wait . . . perhaps twenty seconds . . . and then it happened . . . with a bang! . . .

A HUGE dark mass loomed suddenly above us, and came down with a furious impact not fifty feet from us. There was no sound of course, but the vibrations of the crash came rumbling through my feet and resounded throughout my entire body like a thunder clap. Bob and I were thrown violently to the ground, just as another dark mass, this one smaller than the first, came hurtling down on the other side of us about the same distance away.

"Meteors!" came Bob's frantic yell in my helmet phones. He scrambled to his feet only to be thrown down in a heap on top of me by the landing of two or three other masses. In each case the meteor whizzed through space with breath-taking velocity, struck the soft ground, and disappeared completely underneath. The shell surface seemed to open up for a split second, and then close again instantly, to swallow the fragments without leaving a trace. Large and small masses now began to rain down in earnest. By the sheerest miracle, none of them fell close enough to do us any harm. We pulled each other to a standing position. The shell creatures were thoroughly demoralized. Some were waddling around in a wild panic. Others

were rooted motionless to the ground in abject terror. A few shapeless gelatinous masses scattered on the ground denoted real casualties. As for *Green* and *Red*, they appeared no calmer than their panic-stricken fellow creatures.

As if by instinct, Bob and I turned in the direction of our vessel which we had quit only a few minutes ago. Bob beckoned wildly to the disorganized group of shell beings to follow us. They were too terror-stricken to comprehend or to obey.

"Come on, Earl!" he shouted hoarsely. We plunged up the slope toward the ship. As we ran, it occurred to me in a vague sort of way that our vessel was a pitifully inadequate protection against the murderous rain of death from the skies. A direct hit by even a moderately sized meteoric fragment would squash the flyer as if it were a mere eggshell. However, such is the comforting philosophy of a drowning man clutching at a straw, that we ran on as though the ship spelled absolute salvation to us.

The huge missiles continued to drop all about us. Why our dramatic adventure was not ended then and there by one of the flying masses I cannot to this day understand. Certainly, we must have been endowed by a kind providence with a substantial pair of charmed lives. For the third time now we fell precipitously through the doorway of our vessel and tumbled into the interior. It was getting to be a habit for us to leave our quarters simply and unceremoniously, and return to them with a huge bang.

Once inside, we stationed ourselves at one of the windows, watching the havoc of the meteoric hailstorm without, and fervently praying that none of the fragments decided to come our way.

After what seemed hours, although it really must have been only two or three minutes at the most, the meteors stopped falling. The terrific rumbling and vibration was supplanted by a deathlike calm. Bob and I looked at each other through our helmet visors with immense relief. In the excitement of the moment we found ourselves still wearing the full space regalia, just as we had burst through from outdoors.

"Another close shave," I whispered in awe. "Just imagine what one of those lumps could have done to us!" I shuddered at the thought.

"Right now," returned Bob earnestly, "the question is what these lumps have done to our party of friends outside."

Again we passed through the air lock and stepped out upon the ground. I looked about. Except for a few craterlike circular ridges, and here and there several fragments of surface slabs that had become dislodged or warped, there was no tangible evidence of the recent hail of death.

As we stood there contemplating the scene, a bedraggled group of shell men came toward us from around the other side of the ship. *Green* and *Red* were among them as they waddled painfully in our direction. From the energetic motion of their luminous antennae, despite the grave injuries that some of the creatures had obviously suffered, it was evident that they were happy that Bob and I had been spared. Looking off down the slope we could see a half dozen still forms lying scattered over the ground—victims of a ruthless destruction from the skies. It was clear that, with all the remarkable development and super-human progress accomplished by these denizens of the shell world, they had as yet developed no protection

against this inexorable scourge from above.

SEVERAL eventful days passed—days crowded with activity and with new experiences. I should really say *nights* and not *days*. We were by no means anxious to repeat that first spell of torture under the merciless sun. One taste was sufficient. Therefore Bob and I remained judiciously within the shelter of the ship during the period of greatest heat, and ventured out only after sunset. On the approach of dawn we hurried back to the welcome protection of the flyer.

The shell people were now fully accustomed to our presence in their domain. For a day or two we usually found ourselves with a whole retinue of escorting creatures, some leading us, some trailing us, all eager to be of service. Then the numbers dwindled, as the novelty of our presence wore off. Soon we could count only a dozen or less who clung to us. Finally we found ourselves traveling about with only two creatures as our personal escort—and of course these two were none other than that indefatigable pair, *Green* and *Red*.

They conducted us through their cities—we soon found that the geometrically designed area on the plain was only one of a series of such structural developments. I term them *cities*, for want of any better name. Our two faithful guides took us to the outlying districts of their domain, where we saw for the first time the sources of food upon which the shell race depended for their sustenance. Here, as far as the eye could reach, were rows upon rows of foot-high vegetation, being tended by gangs of cubical workers. We watched other groups of shell creatures transporting the crops from the fields back to the cities on huge

slabs of surface material that they guided deftly over the ground. It was positively uncanny to see these conveyances, supported by nothing tangible from below, gliding smoothly and swiftly a few inches above the surface. Only a touch here and there from the luminous knobs of the attending crew was sufficient to steer the massive bulk of the slab and the freight that it bore. What the motive power was we could not fathom, but we decided between ourselves that it was most certainly associated with those mysterious appendages of whose power we had seen so many evidences.

It was interesting to note that, in all the manipulation of the slices of ground material, they were seldom raised more than six inches from the surface, and in no case was a slab ever supported in any other way except strictly parallel to its original position on the ground.

"It must be part of their very religion," remarked Bob as we stood with our two friends on a slight elevation, watching the proceedings down in the fields. "On that point they certainly made things unmistakably clear to us when we attempted to play around with those sections of surface material. To turn a slice over on its back must be the most serious taboo on their calendar. No wonder they made such a fuss over it." Instinctively Bob rubbed his body ruefully where he had been most sorely chastised on that memorable occasion.

Only rarely during these few days were we troubled by meteors. It was fortunate, Bob explained, that this happened to be a period of diminished meteoric activity. In all cases the speeding missiles struck at great distances from us. In fact we began to become accustomed to them, just as seasoned soldiers in a trench become

inured to the ceaseless bombardment of high explosive shells. We just ducked our heads automatically, and went on with the particular task in hand.

After a few days of what one might call sightseeing, Bob and I turned our attention to real business. We made a careful survey of the dismantled rocket vehicles. Bob picked out a number of the essential parts required for the repair of our own driving mechanism, and had them transported to the ship. As far as the actual handling of the parts was concerned Bob and I scarcely had to raise a finger. Merely a sign from us, and a dozen cubical beings were right on the job to do the manual labor, with *Green* and *Red* in the roles of general foreman of the gang.

We soon learned that haste was essential. We had observed previously that the dismantling processes, as carried on by the shell workers before our arrival on the scene, had been done with neatness and care, so as to preserve the mechanism as far as possible. However, the frequent invasion of meteors had wrecked serious damage to some of the projectiles as we may call them and their mechanisms. We further discovered, to our vast dismay, that the falling fragments had also smashed several of the auxiliary containers and had scattered our reserve fuel supply over a wide area.

"This will never do," my friend remarked grimly. "I'm afraid our stay up here on the shell will have to be cut short very materially. A few more meteors dropping on this spot will completely wipe out our chance of ever getting back to earth again."

We plunged into the task with renewed vigor. Our cubical assistants seemed to sense the meaning of our

feverish activity. Perhaps they reasoned that we were planning another demonstration like the one to which we had treated them shortly after our arrival on the shell. At any rate they fell to the task with doubled energy. It was no easy job, but slowly we saw it nearing completion. Bob was a veritable wizzard in fitting parts together that never were made to fit together, and patching up a seemingly hopeless wreck, with a conglomeration of fittings stolen from a half dozen equally hopeless wrecks.

NEARLY a week had now passed. Bob and I were in the combined control room, living quarters and sleeping chamber of No 43. We were discussing the plans of our getaway—I use *getaway* advisedly, because we could see that a more prolonged stay would place us in a very precarious position, principally on account of the serious depletion in our oxygen supply. If we could but establish some form of communication with the world a hundred and thirty odd miles beneath our feet then, we reasoned, our position would not be so terrifying. We could send news of the strange realm that we had discovered, and direct the dispatching of other parties with the necessary supplies and equipment to engage in extensive exploration of the shell.

Yet, all avenues for communicating with our fellow beings seemed to be closed to us. My repeated efforts at putting the ship's radio into temporary working order seemed fruitless. That method was barred, apparently. Several times we discussed the idea of finding some opening in the rubbery surface through which we could drop a message, and we took every opportunity while on our trip about, to try to locate some such hole, made

either by one of the rocket ships coming through from below, or by a meteor falling from the skies. Here again our efforts proved unproductive. To try to dig our own shaft seemed to be a hopeless task. What with the indeterminate thickness of the shell, as well as the obvious hostility of the native organisms at any attempt of ours to molest the surface slabs, that plan was out of the question.

"I've got a great idea!" Bob suddenly burst forth with boyish enthusiasm. "Now why didn't we think of it before?"

"Quick, Bob," I urged, "what's your latest? Spill it!"

"It would be a great stunt, Earl," he continued absently, "provided"

"Provided what?"

"Provided the shell people could be made to look somewhere else long enough for us to do something with their ground slabs."

"That part of your idea doesn't look promising at all but what's the scheme?"

"Well, simply, it's this: The surface slices are, of course, transparent in one direction, and therefore visible from above, but transparent and invisible when viewed from below. Now if we could secretly turn over one of these slabs without being bothered by the natives, then that particular section would become visible when seen from underneath. Ah, I see that you're beginning to comprehend the idea"

The light of understanding was starting to dawn on me. Darn clever notion I thought

"So you see, Earl, if we could turn over a sufficiently large number of these slices, and put them together to spell out some kind of simple message, then our people below would see it as

a dark inscription against the sky, and clearly legible."

A moment's thought made it evident to both of us almost simultaneously that Bob's scheme, however original and ingenious it might be, was doomed to failure even before it could be attempted.

"It's no use," I shook my head gloomily. "The idea isn't practicable—at least not the way we're situated right now. In the first place we'd have to make each letter of our message enormously large, and even the simplest inscription would have to extend over a tremendous area."

"And in the second place," added Bob dejectedly, "we'd just about have one slab turned over by the time these infernal shell people would be right on us—and that's as far as we'd ever get."

"That's just it, Bob. Even if we could manage to sneak away to some obscure spot and try to construct this message of reversed ground slabs, we wouldn't be able to keep it secret very long. No I'm afraid that idea is definitely out"

"Maybe so!" Bob burst forth with sudden fervor. "Nevertheless I'm game to try it—no matter how crazy the scheme might sound. We're up against it, Earl, and there aren't many things left for us to try—this is one of them, and we've got to give it a chance. These shell people haven't been watching us very closely of late. If we could skip off to some out-of-the-way place we might get away with it. Even if we don't spell out a complete message, at least we might construct a word, or maybe only a letter or two—anything at all—just to let the people on earth know that we're up here safe and sound—or at least comparatively so."

"Well Bob," I laughed, "your pres-

ent scheme is just as scatterbrained as all the others that you've cooked up in your day, even to the scheme of this entire trip itself. The chances are a thousand to one against us, but if you say so, then we'll go ahead and try it. Let's go

Buoyantly, although with full conviction that our mission was a hopeless one, we donned our space suits and emerged into the star-domed splendor of a typical shell night. Those inexorable shadows of ours, *Green* and *Red*, were waiting for us.

Bob and I stopped in our tracks and looked at each other in dismay. Here was something we had forgotten to take into account. How to get rid of this persistent couple!

"We certainly can't do anything with them around," I said.

"They don't seem to understand that there are times when we crave a little privacy," returned Bob peevishly.

"Maybe we can give them the slip," I suggested. "Let's put up a stiff pace."

We started off down the slope. Each step was a prodigious leap that took us sailing up a dozen feet in space and landed us thirty feet away. The legendary "Seven League Boots" had nothing on this! I felt giddy at the phenomenal pace.

When we had covered about a half mile, I turned. *Red* and *Green* were directly behind us, their lower appendages vibrating briskly over the ground, their luminous antennae glowing and waving joyfully. I clutched my chum's arm.

"This is uncanny, Bob!"

"No more uncanny than anything else up here!" was his panting reply.

We started off once more at a killing stride. Our shadows were right there on our heels! There was no shaking them off. Either they had means

of attaching themselves to us by some invisible force, so that they trailed along in our wake with no effort on their part, or else *Green* and *Red* possessed faculties of locomotion that were absent in the rest of the shell people.

BOB and I sat down to ponder this new situation. The two persistent shell creatures hovered close by, like a couple of faithful hounds.

"They just won't be shaken, Bob."

"That's very evident. Guess we've got to give up my pet scheme."

"Why not go through with it, regardless of the presence of *Green* and *Red*?"

"We might do that, Earl, but there's hardly a chance they'll let us get away with it, even though they seem to be stuck on us so."

"It can't hurt to try."

Again we started off, this time at a more moderate gait, with the two "unshakable" organisms just a few steps behind us. Here and there we passed groups of shell people going about their particular tasks. They paid scant attention to us, even though our haste might seem to be unusual. Our presence in the shell world was now more or less taken for granted. So that any activity in which we might happen to be engaged would appear to them as matter of fact and commonplace.

About an hour of tramping over the rubbery surface brought us to a region which was more isolated than any we had so far seen. While covering the last mile or more we encountered only two or three lone cube creatures. And now there was not a single one in sight, with the exception of the inevitable *Red* and *Green* trailing along behind us.

"This looks like a good spot," I suggested.

Bob bent down and dislodged a medium sized slab. I stood by apprehensively with a watchful eye on the two shell men. They did not budge from their positions. Bob straightened up as he heaved the ground section on one of its edges. Still no sign from *Green* and *Red*. I seized a corner of the slab and helped Bob ease it over flat on its other surface. All quiet on the shell front! . . .

My chum and I looked at each other in amazement. This was certainly unlike the hectic experience we had had on that other occasion.

"Well this beats all!" I whispered into my helmit transmitter. "Either the shell people have suffered a complete change of heart, or else . . ."

Bob had stooped to disengage another ground slice when suddenly *Green* and *Red* sprang forward in unison. Bob was almost bowled over by the suddenness of the move. Instinctively I flung my arms up for protection from the precipitous lunge.

Imagine our astonishment when the two shell creatures seized the partly raised ground section and brought it over deftly on its back. That task accomplished they turned to the adjacent portion and heaved that one over with neatness and dispatch. Then came a third slab and another, while Bob and I looked on in speechless bewilderment. *Green* and *Red* now halted and faced us, as though awaiting further orders.

"Well, I'm a fried onion!" breathed Bob in an awed tone. "They're actually helping us! . . . imagine, Earl, actually helping us!"

"I can't make it out, Bob!" I returned. "These two creatures are for us no matter what we do, and no matter how much it may run counter to the customs and beliefs of their countrymen. Strange bugs, these!"

"Well, Earl," spoke up my chum quickly, "now's our chance to make hay while the sun shines. No matter what's back of it all, this much is certain: We can spell out our message here without being molested . . . in fact with the advantage of some welcome assistance from our good friends here."

We fell to work eagerly, and began a systematic reversing of surface plates. The possibilities of our success had appeared so remote at the time we had set forth on this message-sending expedition that we had made no clear cut plans as to what message to send. Automatically, however, we commenced the laying of a line of slabs as nearly straight as we could. That would mark the beginning of some clearly defined symbol, we decided. As each section was turned over and placed on its back next to its neighbor it seemed to melt away, to become invisible, revealing the ground surface directly below it.

Looking down from above there appeared to be nothing very striking about the line of reversed slabs. But I could picture how it looked from below—a thin dark line slowly growing longer as its message was being written against the sky. Of course it would be invisible at night, but with the coming of day it ought to stand out boldly for the earth people to read. However, the dark line would no doubt be too thin to be seen clearly at such a distance. We must make it much wider, by turning over a larger area of ground slabs. So Bob and I talked and planned as we busied ourselves with the strange task which we had started. *Green* and *Red* were right there by our side, lifting and reversing slab after slab with enthusiastic abandon. If only we could continue the work unmolested. If only . . .

A low cry in my earpiece halted me in my work. I straightened up with a ground slab in my arms, and wheeled around to Bob. He was facing away from me and pointing. I followed his outstretched arm. A cube man was approaching our spot in a precipitous hurry. His glowing knobs were waving angrily, and even his very body gave forth a dim phosphorescence in his extreme agitation. He came straight for me and lunged forth with one of his appendages. The surface slab which I was holding was torn from my grip and I was sent spinning to one side. I regained my balance with difficulty.

Meantime another shell creature had sprung into existence, apparently from nowhere. He joined his fellow, and together they fell to work returning the dislodged ground plates back to their original positions. Three more creatures hove into view and pitched in with vigor. Seemingly indifferent to the presence of *Green* and *Red*, the intruding creatures bent to their task industriously. *Red* now dropped his work and waddled over to the group of organisms. There was a menacing brightness in the glow of his antenna knobs. *Green* was right behind him. Bob and I watched the dramatic scene in motionless fascination.

Red seized a section which one of the attacking party had just brought back to its original position and deliberately reversed it once more. Meantime *Green* had laid his appendages on a second slab just being turned over by two other creatures and forced it down to the ground in its inverted position. A pitched battle ensued, a queer battle of swaying cubical forms and vibrating luminous antennae—a battle of tomblike silence.

As we watched in awe, a swarm of

shell creatures suddenly appeared on the scene and joined the fracas. A milling, surging mob it was, with our two faithful friends in the centre of it, probably getting a sound drubbing for their trouble. Bob and I, the sole cause of this near riot, could do no more than stand helplessly on the side lines, watching the considerably one-sided battle continue to its inevitable conclusion.

P R E S E N T L Y the disturbance ceased and the crowd of shell people opened up. *Green* and *Red* were led forth, apparently none the worse for the punishment they had been receiving. It was plain to see however that they were now prisoners, as much under arrest as if they had been in irons. Waving a cheerful greeting to us, they were led off by most of the attacking party. The rest of the shell men remained behind to complete the restoration of the disturbed slabs.

Throughout the entire proceedings Bob and I had been completely ignored, just as though we had never existed. With the last portion of the surface back in its original state the shell creatures turned to us. They beckoned, and we obeyed mechanically. Strange to say we did not feel ourselves as being prisoners. There was no real indication of hostility about these enigmatic creatures. There was more a sense of hurt pride, of injured feelings, as though we had betrayed their trust, and they felt slightly annoyed in consequence.

Bob and I tramped along with our waddling escort. We exchanged only a word now and then. The first party with *Red* and *Green* in their midst was already out of sight. As we marched, I recognized some of the landmarks. We were being taken back to the ship. Presently No 43 hove into sight. Our

faithful allies, with their escorting creatures, were nowhere in sight. Probably they had continued on to the city of the plain. I shuddered at the fate that might be in store for these two stout-hearted little fellows. We reached the vessel, and our convoy of shell men stepped aside. Were we or were we not under arrest? Evidently not. Bob undid the door fastenings and we piled into our quarters once more.

We spent the day inside the ship, eating, resting, napping, protected from the blazing violence of the sun's rays. The dramatic battle of the night before, and the probable fate of our two cubical allies was the chief topic of conversation. The next in importance was the question: What to do now? A startling fact made itself evident at this time. Inspection revealed that we had sufficient oxygen to last us only about three days. Signaling to earth was now out of the question. If we were at all anxious to come out of this escapade alive there was only one thing to do to find immediate means to penetrate the shell with our vessel.

"We've got to dig a hole somewhere," I said seriously, "and get through and in a hurry too, or we might as well write *finis* to the tale."

"But *dam it all!*!" replied Bob. "How in thunder are we going to even begin to dig a hole! All we have to do is scratch the surface and"

He was interrupted by a decidedly familiar rustling sound at the nearest window. Bob and I wheeled suddenly, to be confronted by none other than our two faithful slaves, *Red* and *Green*.

"They're out again!" called Bob gleefully.

And true enough they were

and none the worse for their hectic experience of the previous night. We had spent several mournful hours discussing the probable fate of these two intrepid shell men at the hands of their irate fellows floggings long imprisonment perhaps capital punishment Our hearts had gone out to the brave creatures in their last vain attempt to be of service to a couple of strange invaders from another world.

But here they were, as vigorous and healthy-looking as ever, waving their appendages joyously at the sight of us, acting as genuinely happy as though they had been human beings instead of organic cubes of color-speckled gelatine!

"Maybe they managed to escape," I ventured, "and sneak over to the ship."

"That's not very likely," replied Bob. He was at another window looking out upon the dimly lighted landscape, and pointed out to me at least eight other shell men visible here and there about the vicinity. "*Green* and *Red* are at large with the full knowledge of the rest of the people. Our little friends must have some considerable influence in the community to be able to talk their way out of *that jam*."

"And they seem to want us to come out again, don't they Bob?"

My friend agreed with me that they were apparently signaling us to join them outside. They certainly were gluttons for punishment!

We crawled into our space suits, and once more stood upon the dark surface of the shell. *Green* and *Red* cavorted about us gleefully.

"Wonder what they're up to now, Bob."

"That remains to be seen."

We strolled about aimlessly, with a watchful eye on our two friends, as well as on the other cubical beings visible near by. Nothing much happened. *Red* and *Green* merely trailed along after us dutifully. The other native creatures paid no apparent attention to us. They went about their affairs as though there were no suspicions against either Bob and myself, or the pair of organisms that were dogging our footsteps. Completely forgotten it appeared was the recent battle of the ground slabs, as well as the deliberate desecration of the surface by these two traitorous shell beings. However, perhaps we had it all wrong. Maybe we misunderstood entirely the real significance of that vividly exciting spectacle of last night. Maybe it had a completely different meaning, of which we were ignorant.

Most of the shell men had already sauntered out of sight. Only one or two were visible. *Green* and *Red* were still hovering dutifully behind us. There was a something about them of ominous expectancy that bespoke a promise of action in the very near future. Bob and I exchanged significant glances. And now the last of the shell creatures disappeared over the nearby ridge. We were alone with our two friends. They beckoned vigorously. We followed.

Off to the left we shot, and down into a shallow declivity, then over a slight rise and across a stretch of plain. It was our turn now to trail along after our rapidly moving allies. Luckily we encountered no other cubical beings . . . I say luckily, because Bob and I immediately surmised what was up. *Green* and *Red* were bent upon lending every ounce of their superhuman energy to the furtherance of our schemes. They knew that we had set our minds upon

a certain plan of action. What the whole thing meant they probably were unable to fathom. But they were indomitable in their desire to see the accomplishment of our object, whatever it was. Right now they knew that our chief aim was to reverse ground slabs. And reverse them they intended, or lose their lives in the attempt Brave little chaps!

Reaching a locality with which they were evidently familiar, our guides stopped. They looked about carefully at first to see that we were entirely alone. Then *Red* beckoned us over to a spot and pointed to the ground. It showed evidences of having been disturbed. Many of the surface plates had been loosened and were ready to be turned over, although none of them had as yet been reversed.

"By George!" exclaimed Bob. "They've got it all prepared for us!"

"They refuse to stay licked," I added in admiration. "Their people stop them in one spot, and they pop right up somewhere else."

Red and *Green* stood by dutifully, as though awaiting further orders.

"But we can't go ahead with this signaling stunt, can we Bob?" I expostulated. "We've got to think of a quick getaway, rather than of sending a message."

"Right!" was my companion's terse reply, as though struck by a sudden inspiration. "And here's where we can start working on that very thing. . . . a quick getaway!"

He was on his hands and knees in a jiffy, poring over the ground, laying out distances with outstretched arms, and acting in general in a very mystifying fashion. I watched him in bewilderment. The two shell men appeared to be equally puzzled at his unusual antics. Presently he rose to his feet.

"With the help of *Green* and *Red*," he announced, "we can excavate a passageway right here . . . a tunnel or shaft straight down into and through the shell, and large enough to permit the ship to pass through."

"How are you going to keep this whole operation secret?" I inquired.

"I've thought of that matter, Earl, and I believe I have the answer."

"And then how about the little matter of getting No 43 over to this spot?"

"I've already given some thought to that matter too, and it will be taken care of in due time . . . Say, can't you do anything except stand there and think up a lot of riddles? Come on, let's get to work!"

Bob turned over two slabs, each about four feet square, while I helped as best I could. This done, he beckoned to the two shell creatures. With appropriate gestures he indicated that he wanted them to dig. They fell to willingly. Their luminary appendages zig-zagged through the soft material beneath them. The stuff fairly sizzled into nothingness at the touch of those all-powerful bulbs. Bob and I had seen a similar performance back there at the spot, where the six rocket ships were being dismantled, on the day we burst through the shell. But the speed and despatch of the present demonstration made the other look like "slow motion." In less time than it takes to tell it the indefatigable pair had excavated an oblong hole four feet deep. And as for the excavated debris. . . . why it just vanished, turned into nothingness . . . perhaps converted into gases which were instantly dissipated into the vastness of empty space.

Bob sprang into the trench and directed the workers to apply their excavators laterally now, so as to bur-

row out below the adjacent surface layer. Our little helpers responded willingly. Soon they had hollowed out a chamber large enough for all of us to crawl into. They now gave their attention to the floor of the chamber, working away at that with deft sweeps of their powerful appendages. In a few moments they had the cave deep enough and wide enough for Bob and myself to stand up erect and move about with comparative comfort.

Red and *Green* appeared to comprehend the whole plan of things with almost miraculous intelligence. Before going any further in the excavating process, they fashioned a number of thin strips of ground substance, treating them in some mysterious fashion so as to render them rigid and strong. These they erected at various angles from the walls of the chamber to the roof, so as to support the surface slabs above us. The two sections that had been removed at the very start of the excavating operations they now carefully replaced, shoring them up in the same manner as the other portions of the roof. This accomplished, the two industrious cube creatures turned again to the job of digging. We must have made a grotesque picture there the four of us, hopping about the rapidly growing cave in the eerie pink illumination from the creatures' antennae, Bob and I making measurements and laying out dimensions, *Red* and *Green* working busily at the rubbery floors and walls, melting the stuff away, just as a hot sun melts away a snowbank, only with infinitely greater speed.

"**N**OW here's the way I've figured the thing out," explained Bob as the work progressed. "We'll make the shaft about twenty feet wide. . . . that is, *Red* and *Green* will . . . and

roughly circular in shape. That will provide ample room for No. 43 to slip through, nose down when the time comes. We can dig our way down through the shell without any molestation from the rest of the shell people. I had an entirely different idea of how to keep the digging secret, but our good little friends here have worked out a scheme that has mine all beat. They've got the roof slabs securely shored up, and all evidences on the surface removed, so that even the keenest observers among their countrymen couldn't tell what's going on right beneath them. Why . . . there you are now . . . look!

Bob pointed up. The ceiling slabs were of course transparent and therefore invisible to us from below. The upper part of the shaft appeared as an extraordinarily wide circular opening, with the sky and the stars clearly visible. A form moved across the clear space above us, then another. I caught my breath. They were cube men, strolling leisurely over the top of the excavation. All unaware of the activity going on beneath the thin layer on which they moved, the shell beings passed on. From our position in the shaft, we could see them even after they had moved from directly overhead and continued to walk on more solid ground. Being on the *reverse* side of things, we were looking up at, and *right through* the adjacent ground over a wide area—looking through it as though it were so much clear plate glass. This explained why the twenty foot circle had suddenly appeared to expand into one many times that size. The whole idea of the thing was so uncanny that I found it difficult to grasp the reality of it for some time. And not the strangest part of the entire proceedings was the utter indifference of *Green* and *Red* to things

about and above them. Did they know of the curious semi-transparency of their shell substance? Were they conscious of the extraordinary spectacle visible over our heads? They gave no evidence of either knowing or caring. They merely bent to the task of annihilating the dark matter beneath them, and enlarging the cavity in conformity with the measurements laid out by Bob.

"Well, one thing is certain," I exclaimed in great relief, as the last of the shell people passed out of our range of vision above us. "We're safe from being bothered. They haven't the faintest suspicion about what's going on down here. And now for the rest of your plan, Bob."

"The big job, Earl, is to figure out how far down we ought to dig. To be sure, if we knew how thick the shell is, we could easily stop excavating at a point just short of the lower surface. As for the remaining obstruction, why we'd have to depend on the ship breaking through that thin layer on her own momentum. But, confound it all, there's no way of telling how thick or how thin the shell is. After all, it can't be very thick, because, when we burst through on our way up, there didn't seem to be more than a few seconds interval between the time we struck the under side and the time we landed on top."

"Of course," added Bob, "we could try this: If we tap on the ground with some hard object we ought to hear faint sound vibrations transmitted up through the feet and body to the ears. I've already tried a little of that, and it seems to work. As the thickness of material below us decreases, there should be a change in the sound produced. That ought to give us some measure of how much more we'd have to go to break through."

Bob and I turned our attention immediately to this task. With the butt end of his automatic my companion tapped on the floor of the excavation. The soft ground sent back through our feet a faint response that was barely audible in our space helmets. Would there be any perceptible change in the nature of the vibrations as we approached bottom. Not a very reliable test, we admitted, but it was something . . .

Green and *Red* continued their machine-like excavating. We were now down to a depth of almost twenty feet. Employing no plumb lines or any other truing devices, these two remarkable workers had brought the walls down exactly perpendicular. Their precision was really extraordinary. As they progressed downward they left a series of deep notches or steps in the wall to enable Bob and myself to ascend or descend with ease and safety. As for themselves, they needed no such artificial devices. They scampered freely up and down the vertical sides of the cave, aided by their thin hairlike appendages, as if they were a couple of enormous flies.

All through the night the digging continued, and by the time the sun rose for another day the shaft had been sunk to a depth of over thirty feet. We called a halt, and, after making certain that no shell people were visible above us, we emerged through one of the removable slabs and stood again on solid ground. It was truly remarkable to see a smooth, unbroken expanse of dark surface, revealing not a trace of evidence to indicate the presence of a vast hole directly beneath.

Bob and I were extremely tired, as well as ravenously hungry. Our cubical assistants seemed to be as fresh and lively as though their monumental

piece of work was merely child's play. They conducted us to our ship, passing *en route* several groups of shell men. Bob and I tried to look as unconcerned as possible. The creatures did not even give us a second glance. What unsuspecting and inordinately gullible beings! They had caught us red-handed on two different occasions, and here we were, out in public in the company of the perfidious *Red* and *Green*. . . . and they merely observed us blankly and let us pass! Were they stung to action only by an obviously overt act? Were they fully aware of our machinations, and merely biding their time? It was impossible to determine what lay back of the unperturbable exterior of these enigmatic organisms.

Once at our vessel Bob arranged, through various signs and gestures to have our energetic little helpers meet us at the shaft at sundown. He had made particular note of routes, landmarks, etc, and was certain that we would find the spot again unassisted.

Shortly after noon we were awakened by a disturbance outside. It was another meteor shower. The nearest of the speeding missiles fell at some distance from the ship, although that was close enough to make us feel pretty uneasy. There were no shell creatures visible at the time, and it was difficult, from our position, to determine if any extensive damage had been done by the falling fragments.

However, sleep was no longer possible for either of us. We were worried no end about the safety of our partially excavated shaft. A direct hit would ruin our work and doom our chances of escape back to earth. Even a less than direct hit would probably result in a dislodging of the surface plates covering the big hole and the exposure of our scheme. The mere thought of the ticklish situation,

whichever way things eventuated, was sufficient to make both Bob and myself break into a cold sweat.

"We've got to hustle," said my companion. "This may be just a forerunner of what to expect from now on. Perhaps we are entering a period of increased meteor activity. If that's the case, we may see more and more of these fellows dropping down on us."

"And what's more, Bob," I added, "We have only about two days' supply of oxygen. There's no time to waste now."

Our situation was truly alarming, from the point of view of both the meteor danger and the rapidly dwindling supply of the life-giving gas. Yet Bob was supremely confident that we would win the race against time and the elements.

Before sundown we left the ship and made our way to the site of our excavation, hoping all the time that we would not arouse too much suspicion. None of the few shell beings whom we encountered along the way molested us, or even gave us much more than a casual glance. The spot was deserted, but we had waited hardly fifteen minutes when *Red* and *Green* hove into sight. We entered the shaft hurriedly, and the tireless workers plunged into the job with furious energy. They seemed to understand that time was precious—that every moment counted now. And they cut through that dark ground-substance with a zeal that was truly astonishing. Bob and I were really superfluous—in fact far from being of any material assistance, we found ourselves very much in the way. *Red* and *Green* kept us hopping from one point in the huge hole to another as they tore away at the floor and walls. You could almost see the bottom of the shaft dropping away from under our feet.

FROM time to time we tested out the vibrations transmitted up through our bodies in accordance with the scheme that Bob had developed. We tapped away dutifully upon the soft ground, and listened for any change in the nature of the tone that resulted. To be perfectly frank, I was unable to detect any greatly marked differences at different levels. There might have been some change in pitch, in fact I could swear that the sound *did* appear to alter slightly, but the conditions of the test were so uncertain as to make the results extremely unreliable. Bob was finally forced to admit that we could not place much faith in the tests. We'd just have to trust to luck. It was simply a case of stabbing in the dark. At some point, and that very soon, we must call a halt on the digging operation.

By sunrise the shaft was nearly eighty feet deep. Bob and I now put our heads together. Should we continue? If we were suddenly to "hole through," then what? . . . why nothing more serious than a nice little tumble for the four of us . . . a tumble of over 130 miles to solid ground. . . . a breath-taking stunt, even the mere thought of it made me gasp.

We decided to call the job finished right here and now. The hole was deep enough. A few feet more or less would hardly make any material difference. Back in No. 43 only a single day's supply of oxygen remained! . . . Moreover, ominous rumblings had been coming to us all through the night at longer or shorter intervals. They denoted but one thing—the meteors were becoming more numerous. Most of the vibrations, to be sure, were faint, indicating that the flying fragments were striking at comfortably great distances from us. Nevertheless the idea was not a pleasant one to con-

template. How could we be sure that at the very next instant a huge mass of matter wouldn't decide to come down right on our diggings, and wipe us out at one fell swoop? . . . or, what was equally possible, strike our ship and leave us stranded high and dry?

Bob and I hastily clambered to the surface, with our gelatinous helpers right at our heels. They replaced the trapdoor slab and turned to us for further orders. Bob motioned them to come and we set off in the direction of the ship. We reached it in record time. Sleep was out of the question now. Minutes were precious. Low mutterings came vibrating through the ground and up into our bodies. Meteors were falling with increasing frequency. Their sinister rumblings made my very soul tremble. We couldn't wait until the next sundown to stage our escape. It had to be done right now

Our innermost hopes and forebodings appeared to pass like a contagion to the consciousness of *Green* and *Red*. Evidently they sensed the air of apprehension—the unusual tension of things—the importance of haste. And as for the rest of the cubical creatures, they also seemed aware that there was something "in the wind." Engrossed as they were with the alarming matter of the falling meteors, they showed signs that our sudden haste was not going unnoticed.

"Just a last test on the rockets," I said briefly when we reached the ship.

"And then we can move!" was Bob's terse reply.

I struggled with the door lock for a few moments. The mechanism was still erratic in its operation. Having been somewhat dislocated at the time we burst through the shell, it had given trouble nearly every time we

had occasion to open or close it in our frequent goings and comings. Several times Bob had attempted to repair it, without success.

Well, there was no time to think of such trifles now. I finally managed to open the trap and proceeded into the interior of the ship, while Bob waited outside. Without even removing my space suit I busied myself with the controls.

"**O**K. inside!" I called into my helmet transmitter. "I'm going to test out unit No 3 for a minute, Bob. Watch out!"

"Let her rip!" came Bob's cheery voice in my ear pieces. I opened the fuel valves and applied the switch. A slight quiver ran through the vessel. After about ten seconds of firing I shut off the unit.

"Works fine!" was Bob's grim comment as I emerged through the outer hatch. "And the folks here are all excited about it too! Just look at them!" Shell men seemed to spring right out of nowhere and come flocking to the spot. For the time being they seemed to have forgotten the menace of the meteors. Again they appeared to consider themselves as witnesses of a scientific demonstration, similar to the others to which we had treated them. Their motions and gestures sent a message that was as plain as day. . . . they wanted more! . . . *Red* and *Green*, in the front rank of the spectators, were equally vociferous with the rest that is vociferous in the manner of their type of speechless communication.

"Try one or two of the lateral units, Earl," said Bob. "But for Heaven's sake, only a couple of seconds firing at the most! . . . we haven't any fuel to waste!"

Again I darted into the chamber.

Two of the side rockets responded to my touch and then ceased promptly as I switched off the controls. I joined Bob outside "Everything's ready," I whispered.

A rush of meteors at some distance from us threw the assembled crowd into a mild panic. The shower halted momentarily, and the disturbed multitude calmed down.

Bob motioned to *Red* and *Green*. They responded as though they were trained seals. Bob's gestures indicated that he wanted the vessel lifted. The two cubical creatures sent a flashing communication to their fellowmen. Evidently our two friends still had plenty of influence with their brethren of the shell world, in spite of the little difficulty which had transpired several days ago.

Two score or more of the cubical organisms closed in upon the ship. Applying their power appendages to various portions of the metallic surface, they heaved in unison. The massive bulk was lifted bodily off the ground. We led the way, with strangely perambulating No 43 following along majestically. Those shell creatures who could not crowd around the ship and lend their immediate support scampered vivaciously about the moving mass, or else followed along behind, forming a straggling tail to the unusual procession.

"I wonder what they think we're up to," I whispered to my companion.

"Maybe they have an idea we're out to give them a bigger and better demonstration."

"As indeed we really *are!*" I added grimly.

"Perhaps they are under the impression, Earl, that we're scared of the meteors, and so we're merely moving the ship to some other location where we believe it will be safer."

"Well, they can believe anything they please, Bob, as long as they don't guess the truth."

"They'll soon learn that all right! . . .

"It seems strange, doesn't it, that they're so willing and eager to be of service to us, after that rumpus they kicked up with us about moving those ground slabs?"

"It appears to me, Earl, that that's their pet aversion. Any time they catch us monkeying with their precious ground, that's the time we may expect trouble. But so long as we keep our hands off, then they are the sweetest, honest sort of creatures. Isn't that the size of it?"

"That explains it all, Bob. Right now they're the greatest help imaginable. But, oh boy! . . . if they only knew! . . ."

"They're going to know . . . pretty soon . . ."

As we trudged along with the great mob behind us, Bob outlined his scheme for the take-off. His idea was to have the vessel brought to the edge of the concealed shaft, and so placed that her nose would extend out a few feet over the excavated portion. Then, by suitable props placed under her middle and her tail, she would be given a tilt forward and downward. When all was ready, we would hop in and "give her the gun," firing several units from the rear, as well as a number of the lateral rockets. The unequal thrust would be sufficient to force the nose of the ship down with considerable violence on the thin roof structure of the shaft. The rest would be easy a drop straight down the eighty foot shaft to the floor a bursting through the remaining thickness of shell material (a thickness of indeterminate extent, by the way!) and then a sheer drop of 130

miles, controlled of course by the decelerating effect of the braking rockets in the ship's nose concluded by a graceful landing on Mother Earth!

HOW thrilling the whole idea sounded! and yet how fraught with danger! how many uncertain factors there were in the entire scheme! suppose the shell men discovered our duplicity before we could make our escape suppose the ship refused to drop accurately into the prepared hole in the ground suppose the unexcavated portion would prove too thick for even the tremendous momentum of No. 43 to effect a breaking through, and we remained stuck fast like a bullet in a trunk (*Damit!* why hadn't we gone down 150 feet 200 feet even more, instead of a paltry 80? but there was the time element! and our dwindling oxygen supply!) Suppose we did "hole through" successfully and then ran short of fuel? *Whew*, what an idea! no possibility of braking in that furious descent a drop through the atmosphere like an incandescent torch! to strike the earth as a mess of gorgeous cinders!

And so we tramped along in the van of this strange parade, going over each phase of the plan in subdued whispers. Unconsciously our tones were hushed and tense, although we could just as well have shouted our schemes to the very sky and still enjoy perfect secrecy. The shell men swept along behind us in holiday mood—as though this were one great lark.

Red and *Green* were of course right there beside us all the time. And what of these two brave fellows? Could we now, on the very eve of our dramatic departure, convey to them adequately our deep gratitude for the well-

nigh indispensable aid which they had rendered us? And what was the motivating factor in their boundless devotion to us? Would we ever know?

Now we were at the very site itself. The surface presented a smooth and untouched appearance. But this was the spot, all right! certain definite characteristics served to stamp it indelibly in our minds. We estimated the outline of the shaft by several almost insignificant markings. The shell men halted with their burden, as though awaiting orders to place the ship at any designated point. Bob motioned. The vessel was maneuvered around deftly. Again a signal from Bob and No. 43 was gently lowered. He now motioned to *Red* and *Green*. A few appropriate gestures, and they understood. Would the rest of the shell populace countenance the next move? It remained to be seen. Our two assistants cut several long strips of ground material, and treated them with that mysterious ray or emanation from their lighted appendages, as they had done once before in the shaft. The strips became rigid as steel bars. There was an uneasy stirring among the ranks of the cube people, but they did not molest the two at their work. Evidently they were satisfied that this procedure was essential to the success of the forthcoming demonstration—as long as there was no attempt to dislodge ground slabs and reverse them as on that other memorable occasion.

Our helpers now entered into communication with their countrymen. Presently a squad of them laid hold of the ship and slowly raised the tail off the surface. *Red* and *Green* quickly slipped the rigid ground strips under the elevated portion. They then hastened to prepare several more sim-

ilar rods and inserted them into place. Bob waved his satisfaction and thanks. The shell men stepped back. No. 43 was now ready

During the course of the preparations, Bob and I voiced considerable apprehension to each other. The cubical creatures were swarming all about the place, a good many of them crowding over the roof portion of the hidden shaft. Would it hold? What if the flimsy shoring should give way and the thin layer of ground slabs collapse under the weight of the multitude? But the roof held. Either it was the extreme lightness of the shell people, or else the seemingly frail supports were far stronger than we had suspected—and sufficiently rigid to hold up the great crowd that surged on the surface slabs.

Well, we were ready to go. The area over the shaft would first have to be cleared. There was no sense in causing any greater casualties to the shell people than we had to. It pained us deeply to realize that our precipitous departure would necessarily do some damage among those creatures that happened to be closest to us. That was inevitable. Yet we could minimize the extent of the catastrophe, if we shooed them away to a respectable distance. Bob started out from where the rocket ship was poised and strode across the top of the shaft, waving back the hoard of cube creatures. *Red* and *Green* were with him, helping to sweep the rest of the shell people from the area directly over the excavation. As for myself, I circled the ship and did likewise to the crowds that pressed about it. I succeeded in getting them back a dozen feet or so. They offered no resistance, seemingly certain that the stage was being set for a grand show And it truly was.

Coming back to the nose of the ship,

close to the hatch I perceived that Bob together with his team of helpers had succeeded fairly well. Most of the crowd had been persuaded to move away from the imaginary circle that denoted the excavation. A few stragglers were still waddling about in the danger area. Bob was now well beyond the far side of the circle, about fifty feet from where I stood. He turned and looked back across the partially cleared area to where the ship lay tilted.

Suddenly a dark streak shot through space. Instant pandemonium broke loose over to the left on the fringe of the crowd of cube beings. A meteor! Several more came hurtling down and crashed some distance away. I could feel the ground tremble beneath my feet. The terrified creatures broke into motion. Some of them began to close in on the cleared area. Others at the outskirts of the multitude commenced to disperse in all directions.

I yelled across to Bob, although what it was that I called to him, I am not sure. He started toward me. He took but one step, when it happened

A dark smear stabbed downward between us. The hurtling meteor—a relatively tiny fragment—struck the roof of the shaft and disappeared below, leaving a jagged, yawning hole about six feet in diameter. And along with it there disappeared also two or three unfortunate cube men that happened to be moving about at that spot.

For a moment the crowd of creatures was taken aback by the startling suddenness of this new revelation. Other meteors fell near by, but they were completely ignored. Awakened suddenly to action, the nearest of the shell men hastened to the edge of the gaping hole. Others began crowding

about it. All danger was forgotten. They were intent on only one thing—this sudden and amazing manifestation

THE jig's up!" came Bob's startled words into my earpieces. "They're on to us for fair no telling what they'll do now! we've got to get away from here *this very minute!*"

He lunged forward through the crushing mass of shell creatures, making a wide détour so as to circle around the outside of the roof area. I could see him fighting his way inch by inch. It was only a few feet, yet it must have seemed like miles to him. And now he was by my side.

For a fleeting moment I had been rooted to the spot by the sheer drama of the situation. Now I was galvanized into action. We both turned to the ship. Two leaps brought us to the door. Confound that infernal lock! jammed once more! and at the most crucial moment too! We tugged and swore out loud. It refused to budge. I shot a hasty glance over my shoulder. The mob of shell people that had cleared away from the immediate vicinity of the ship was now closing in, their mien one of unmistakable menace. Over on the circle, with its dark hole in the centre, the crowd milled and surged. Some of them were making toward the ship too. From overhead the rain of destruction was coming down with increasing fury. Large and small meteors were falling with increasing frequency. The destruction among the shell people was appalling. Yet they seemed to pay scant heed to the fury from above. They were being consumed by a fury of their own. We earth men had dared to commit the unpardonable sin—had dared to molest their sacred surface

covering—to dig down through their shell substance with secrecy and duplicity And such treachery would not go unavenged!

Madly Bob and I tugged at the door. It suddenly gave, and swung out. As it did so, I felt a strange pull at my elbow. We turned. There were *Red* and *Green*. They had followed Bob through the milling throng. And their mute appeal was as real and as vivid as a spoken message.

"Well, I'll be!" blurted Bob. "They want to come along!"

"No harm!" I shouted back. "Let's take 'em! as souvenirs!"

I clambered into the doorway as Bob gave me a terrific heave to hasten my progress. Once in, I reached back to drag him in behind me. Following him came the faithful pair of helpers who refused to be left behind.

The multitude of shell men were shocked into momentary inactivity by this sudden turn of events. What was the meaning of *this*? Two shell men deserting their fellows and casting their lot with the invaders from another world!

With glowing antennae waving a threat of vengeance and retribution, the creatures flung themselves from all directions upon the ship.

"To blazes with the air lock!" shouted Bob hoarsely. "I abandoned the attempt to fasten the inner door device and hurled myself at the controls. On went tail units No. 1, 2 and 4! lateral units No. 6 and 8! The ship quivered in every joint. She heaved over sharply, nose down, stern flung straight up into space. Bob and I held on to whatever supports were available. I could see *Red* and *Green* huddled in a corner of the control chamber.

One two seconds of headlong fall! I jammed shut the fuel

feeds to laterals 6 and 8. The stern units blazed away furiously.

Crash! The ship shook until I thought she would fly to pieces. A grinding and a sloshing . . . that familiar sensation we had experienced once before on our up-trip. No. 43 was tearing through the solid shell material. Would we go all the way through? . . . Would we jam to a fearful stop before reaching the lower surface?

Another quiver! . . . the grinding noise had ceased! . . . our speed was picking up! . . . *the ship had holed through!* . . . we were shooting back to earth at a terrific pace.

With a cry of exultation I swung the lever that throttled the stern units and applied the braking rockets in the nose. Our speed gradually decreased. Bob stood at the window opposite the control panel gazing fixedly out toward the stern of the ship. I followed his gaze to see a deeply violet sky, with a myriad pinpoints of light flecking its vast expanse. The yellow orb of the sun shone forth in the midst of it all.

"And we're looking right through it, too," he muttered . . . "right through that mysterious shell of one-way transparency."

A number of dark masses whizzed past our ship and hurtled down toward the earth. One or two came perilously close. They seemed almost to brush the sides of No. 43 in their swift flight. Since our rate of drop had been materially slowed up by the decelerating influence of the nose rockets, we appeared almost to be standing still in comparison.

"The meteors are still falling thick and fast up there," I remarked, "and breaking right through the shell."

"This is a *real* shower," commented Bob gravely, as the missiles flew by in

increasing numbers. "Just imagine the havoc they're doing to those creatures up on the shell. Poor wretches! . . ."

I slowed up our rate of descent. Bob and I prayed inwardly that we escape the wrath of this meteoric storm, just as we had so miraculously weathered the others on the shell surface. Apparently it was the decision of a kindly fate that we were to be spared. The shower abated. All was now serene without. The ship continued its smooth drop and we began to breathe more easily.

Over in the corner *Red* and *Green* were still in their original positions. Overwhelmed by the kaleidoscopic succession of events, bewildered by the inordinate strangeness of new surroundings and new experiences, they could do no more than stare (or the cubical equivalent of stare). Bob waved a cheerful greeting to them, and they responded feebly.

After the first few tense minutes in our new situation, I suddenly became aware of an unusual circumstance. I burst into a shout of laughter.

"Why, Bob," I cried, "do you realize that we're still wearing these space togs—helmets and all? . . . And right here inside the ship, too! . . . That's what I call *rich*!"

"Darned if I didn't clean forget about it," replied Bob in huge amusement. "Things were happening so fast, it just didn't enter my mind."

He suddenly moved to the instrument panel and consulted it. Then a soft exclamation sounded in my helmet phones. He jumped across the chamber to the air lock.

"It's mighty lucky we kept these outfits on," he called. "Just take a slant at that pressure indicator, Earl!"

I glanced curiously at the instrument, and uttered a muffled cry. I

peered at my wrist recorder to compare the reading.

Both devices registered a pressure of *zero millimeters—a perfect vacuum!*

"It's this infernal air lock again," explained Bob as he worked at the mechanism. "In our haste about getting aboard we didn't fasten the catch properly—you know it's been out of kilter ever since we landed on the shell. Well, the air has all escaped—probably disappeared in a few seconds after we opened the doors."

"And if we had ripped off our space suits at the very start then Whew what a close one that was!"

"I'll have this door sealed tight in a jiffy," announced Bob, "then we can boost up the pressure inside and be comfortable once more. How's the oxygen supply?"

I consulted the meter on the last reserve tank. "Not much left," I replied, "but I think there's enough to last us until we get back to earth."

Our cubical passengers were still in their corner, watching the proceedings with evident interest. Bob continued to work on the door device, while I stood at the controls. Presently a low cry of satisfaction from Bob announced that the job was finished.

"That'll hold nicely until we land," he said. He came over to my side of the ship and opened the valves to build up the artificial atmosphere within the chamber. The barometric needle swung steadily about the dial. In less than a minute the air in the room was at normal pressure. Bob hurriedly discarded his cumbersome suit and helmet and flung them far from himself, as though happy to get rid of them—and well he might be! Then he took over the ship's controls for a few moments while I likewise divested myself of the *impediments*.

Suddenly my companion burst forth with a cry of anguish—of genuine heart-tearing anguish.

"LOOK! for pity's sake"

L he pointed to the far corner. I wheeled in astonishment to follow his gaze. My blood nearly froze in my veins at the spectacle.

Red and Green were well they were *no more*.

In their place were two flattened colored masses—just cozy smears on the floor. I was across the room in a flash, Bob abandoned the controls and was by my side. We gazed in horror at the awful sight. The realization of the terrible tragedy dawned upon us almost simultaneously.

The pressure! nearly fifteen pounds to the square inch! these poor creatures had been created to live only in a total vacuum the crushing weight of the artificial atmosphere within the ship had literally squashed their frail bodies had flattened out the porous cubes just as though a tremendous roller had passed over them. We knelt beside the mortal remains of our loyal little friends from a strange world. The twisted appendages that lay sprawled out on the floor still exuded a pale glow at the knobbed ends, although the light was failing rapidly even as we looked. It seemed to me that one of the luminous antennae was twitching nervously. I called Bob's attention to it. He agreed that the appendage moved faintly. Was it a last feeble gesture from those redoubtable creatures? Was it a final farewell wave before their souls were wafted to a distant Valhalla of shell people? We let it go at that

Sadly Bob and I returned to our tasks. There was an ache in our hearts that could not easily be dispelled. Si-

lently we guided the ship back on her course toward solid earth. We entered the denser layers of the atmosphere, and the violet aspect of the space about as slowly turned into familiar daylight. I checked the ship's descent, and, when about fifteen miles from the surface, we took our bearings. We found ourselves over the region of the Great Lakes. In a few moments the ship's nose was pointing southeast, and we were executing a graceful curved descent that would land us in New York.

Almost unnoticed the flyer dropped to a smooth landing on the Stratosphere Transport field. Had we completed our mission? mission? . . . what mission? . . . Oh yes, to be sure, those lost rocket ships! . . . we had located them. And we had discovered a new world, an invisible world, and yet a very material one. And we had brought back two flattened heaps of red and green gelatin as evidences of the life that existed up there in that dim shell-world "beyond the stratosphere."

THE END

Science Questionnaire

When did Plato live, an early science-fictionist? (See Page 9)

What is the modern view of the authenticity of Atlantis? (See Page 9)

What was the ancient name for the Strait of Gibraltar? (See Page 9)

Were the Atlanteans peaceful in their civilization? (See Page 9)

What is the story of the fate of Atlantis? (See Page 10)

Are the well known stories of the severe laws of Sparta under Lycurgus to be accepted as true? (See Page 10)

What do we know about the trial and death of Socrates? (See Page 11)

What do the words so often used, Utopia and Utopian mean? (See Page 11)

What peculiarity of the human mind operated to impede the advance of science? (See Page 11)

What is the difference between ancient and modern science? (See Page 11)

What was the origin of the fabulous country of Lemuria? (See Page 12)

How does the name Erewhon compare with the name Utopia? (See Page 12)

What is a summary of the Einstein doctrine? (See Pages 59-60)

What are the relations of electricity to human beings? (See Page 65)

Which satellite of Mars rises in the west? (See Page 81)

How long does it take Phobos to go around Mars? (See Page 81)

What is the characteristic of the motion of Deimos around Mars? (See Page 81)

How would wood float upon mercury? (See Page 93)

In the Realm of Books

By C. A. BRANDT

UNSOLVED PROBLEMS OF SCIENCE.

By A. W. Haslett, published by the Macmillan Co., 60 Fifth Ave., New York, 317 pages, \$2.00.

It is Mr. Haslett's idea that "the ignorance of Science is at least as diverse as its knowledge and in many ways more interesting."

The book is vaguely reminiscent of Haeckels: "Riddles of the Universe" since he speculates at length about the possibilities of what the future may bring—the mystery of matter—the origin and probable end of this Universe etc. He gives due credit to whatever Science has accomplished so far, and throughout the book he tries to make the reader realize that Science is pushing ahead steadily and he closes with the sentence: "There can be no doubt that a similar balance sheet, presented fifty or a hundred years hence will make a very different reading." A very interesting book.

THE POISONED MOUNTAIN.

By Mark Channing, published by J. B. Lippincott Company, Philadelphia, Pa.

We first met Major Grey, gigantic of stature and achievements in King Cobra and again in the White Python, and now we have the pleasure of meeting him once more (Vivant Sequentes). He has married his old love Diana and is now on a sort of honeymoon hunting trip with a sideline of investigating the anti-British activities of one Lal Behari. This Babu gifted with an uncanny mastery of hypnotism is expecting the arrival of a large contingent of armed natives whose leaders have agreed to help him free India from the British Raj. Nearby is an almost defunct volcano, which from time to time belches forth large quantities of a lethal gas, and with the aid of a British chemist, hypnotically controlled, he is shipping the gas out in crystal form, to be reconverted into gas at an appointed time. Grey and Diana fall into the clutches of Lal Behari, and we are made to witness episodes of hair raising cruelty. But when Grey's head is about to be chopped off, he is rescued, and in a very satisfying massacre Lal Behari and all his followers are rubbed out, and England's Meal Ticket is kept intact.

A first class fantastic adventure story.

THINGS TO COME.

By H. G. Wells, a Scenario, published by Macmillan Co., 60 Fifth Ave., New York, 155 pages, \$1.50.

If Mr. Wells has been accused of verbosity, particularly in his later books, this accusation cannot be made as far as "Things to Come" is concerned. It is written as a scenario—in staccato tempo—in short clipped sentences, with terse descriptions, and it is left to the reader to visualize everything for himself. "Things to Come" is so to speak, a concentrated version of his book: "The Shape of Things to Come" and as such it is very good. "Things to Come" describes the World as it appears after the second World War which lasted for thirty odd years. All of Europe as well as the Americas is a complete waste with all their large cities in ruins. Industry and all means of transportation are utterly destroyed. More than fifty per cent of the World's Peoples have been killed, by gas, guns and epidemics. Frontiers have ceased to exist, and all nations have decayed into small districts, tyrannized over by dictators and other politicians and opportunists. Food is always scarce and bitter fights are waged by the various rulers. As Mr. Wells pictures it, the World is in a very terrible mess in 1970.

How can things be put into better shape and how can order be brought out of the chaos? By Science alone, states Mr. Wells, and in the following chapters he describes how a group of scientists—engineers—inventors—chemists and other clear thinkers of both sexes, have banded together on the continent in an organization called "Wings over the World"—a sort of Brotherhood of Science. They have perfected fool-proof planes, with an enormous cruising radius. They have invented a new "Peace Gas" which puts people, who breathe it, peacefully to sleep for forty-eight hours, and with these two weapons they conquer the world and create a new and a better civilization. At the beginning of the year 2054 the entire world has become one nation, and the millennium would be at hand if it was not for atavistic tendencies, which crop out once in a while. The book closes with a pitched battle between the malcontent throwbacks and the others, when the throwbacks attempt to destroy the newly perfected space gun,

which is to usher in the Era of interplanetary travel.

As was to be expected "Things to Come" has been made into a film. Of course not in the U. S., but in Great Britain. The Hollywoodheads are still wallowing in the pseudo-sentimental and sexy garbage, featuring raucous-voiced hoofers, and fail to see that other nations are miles ahead of them in the production of screen entertainment.

I have been informed that "Things to Come" will be shown in New York very soon, and I am awaiting its showing with eager anticipation. I only hope that some film company will also see the vast possibilities in some of Wells earlier books, like "The War of the Worlds"—"The First Men on the Moon" etc.

SWORDS OF MARS. By Edgar Rice Burroughs, published by Edgar Rice Burroughs, Inc. Tarzana, Cal. 315 pages, \$2.00.

This I believe is the 8th or 9th book of the "Mars" series and in my opinion it is a great deal better than most of them. Mr. Burroughs' imagination soars to hitherto unattained heights, developing some absolutely new and unique features. It can truly be called a vehicle of escape from the laming monotony of our daily life. We again meet our beloved hero John Carter, Warlord of Mars, whose wife Deja Thoris has been kidnapped by the Assassins' Guild, whose well organized power John Carter is trying to break. Through a girl slave he meets on Fal Sivas, who has invented and perfected a space ship operated by a mechanical brain, Carter discovers that the device obeys his own thought impulses also. Carter is informed that the Princess is hidden on the nearer Moon of Mars, and appropriating the thought-controlled space ship, he reaches the nearer Moon and discovers his Princess who warns him of unseeable dangers. Carter and his companions are taken prisoners by invisible forces, and thrown into a dungeon. There he meets and makes friends with a veritable monster, a "Cat" man, learns his dialect, and finds out that they are prisoners of the Tarrids. The members of this strange

tribe, through tremendously developed hypnotic power are capable of rendering themselves invisible, but Carter also learns that a strong exertion of will power and mental concentration will render them visible. Ul Vas the chief of the Tarrids condemns all his male prisoners to death by sacrifice, saving good looking female prisoners for himself. Now complications set in. Ozara the jealous wife of Ul Vas comes to the rescue and the entire party escapes, after many highly exciting adventures, the offenders coming to grief very promptly, as it should be.

"Swords of Mars" is strongly recommended to all who liked the previous "Mars" books.

P. S. Allen St. John's illustrations are getting better and better.

THE BAT FLIES LOW. By Sax Rohmer, published by the Crime Club, Inc. Garden City, N. Y. 310 pages, \$2.00.

If you like Sax Rohmer's stuff, the creator of Dr. Fu Manchu, you will undoubtedly like this book also, but be warned, the insidious Doctor is missing from its pages this time. For a change the scenes are laid in New York and in Egypt. The book has some slight scientific interest, as it pretends to deal with the civilization of a forgotten people, who had mastered electricity to such an extent that they could use it in its static state for the production of light. The book is heavily padded with all kinds of mysterious happenings and will make very good reading if you have nothing better on hand, and if the libraries and bookstores and news-paperstands are closed.

In Memoriam

From time to time I have voiced my opinion about the books written by **COLONEL JAMES CHURCHWARD** who wrote about Mu. It was with great sorrow that I read about Mr. Churchward's death which occurred last January in Los Angeles. He was 82 years old. Though I rarely agreed with him, I always admired the strength of his convictions.

Requiescat in Pace.



DISCUSSIONS

In this department we shall discuss every month topics of interest to readers. The editors invite correspondence on all subjects directly or indirectly related to the stories appearing in this magazine.

A Most Acceptable Letter, Because It Is So Well Thought Out

Editor, AMAZING STORIES:

I really must compliment you on the fine manner in which you are editing your magazine. The improvement shown in the last two issues, December, 1935 and February, 1936, is nothing short of remarkable. Perhaps this statement is influenced somewhat by the sharp contrast between these two numbers and the one for October, 1935, which issue I consider the poorest you have ever published, not excepting a few of those during early 1935, when science fiction reached its lowest ebb. Nevertheless, I repeat, A. S. has very definitely improved, regardless of what certain of your incessantly carping critics may say.

The best-written, and most thought-provoking story in the December, 1935, issue was the highly-imaginative "The Fall Of Mercury." I didn't think Miss Stone had the ability to construct such an imaginative, breath-taking fantasy, but she certainly changed my opinion with this, her best story up to now. I would like to see many more stories by her in future issues, if she can make them even half as good as this one. In the same December issue we have "Draught Of Immortality," a very entertaining short story. The word-picture created by the author, A. W. Bernal, impressed me as being the work of a master, although the only fair ending almost destroyed the illusion of reality. There was good philosophy contained in this story. Let's have more like it!

The other stories in this number were good, and were truly representative of the magazine, although, as one reader has already pointed out, the science in "Restitution" was doubtful. The cover by Leo Morey was good. In cover paintings he is irreproachable.

The February, 1936, issue also upheld the reputation of A. S. as the "Aristocrat Of Science Fiction." Mr. Endersby's wonderful novelette of the future can be classed as nothing less than a masterpiece of science fiction. There is much wisdom contained in that all-too-short classic. To me, it repre-

sents the peak of science fiction. It contains much that can be applied to present-day civilization, and that, I believe, is one of the most praise-worthy purposes of this science fiction, of which I am such a devoted reader.

Then you presented a fine group of short stories, the foremost among them being "21931," a thoroughly realistic tale by an author new to science fiction. There was plenty of action contained in this story. It was reminiscent of Phillip J. Bartel's fine stories of the twenty-fifth century. I enjoyed it!

"Hoffman's Widow," though not even remotely related to science-fiction, was enjoyable. It does not belong in this type of magazine, however.

Next month's stories look promising, especially Hamilton's "Intelligence Undying." I expect something good from him. By the way, this is the first time he's appeared in A. S. since 1932, when he had "Space-Rocket Murders," isn't it? I see Nathanson has a story scheduled for next issue, too. He's a pretty good author, but has never written anything to equal his first story, "The Conquest Of The Earth," which was way back in 1930.

Taking a peek at "Discussions" for February: Charles Pizzano was very effectively "squelched" by Willis Conover. He falls under the classification of one of those "incessantly carping critics" which I previously mentioned in this letter. I would request that you cease printing letters like his, as they detract from the merit of "Discussions." Criticism is all right when kept within reasonable bounds. Mr. Pizzano overstepped these bounds. Of course, I realize that you want to keep these columns as open as possible, but I don't think you are being fair to others in your audience by printing stuff like this. I know from experience that it certainly does not improve one's attitude towards science fiction. Of course this does not refer to letters like that of Mr. Lowndes in the latest issue. Letters like his add interest and spice to "Discussions."

Oliver Saari contributed his usual interesting letter, and Mr. Welks puts his oar into the grammar controversy. I am inclined

to side with him on the matter, but he and I certainly must have radically different ideas as to what constitutes good science fiction, for he says, ".... The October number was really magnificent" Now, now, Mr. Welks!!!

Wonders will never cease! Imagine, a reprint in the "Discussions" columns! The letter of mine appearing this month, was originally printed in the July, 1935, issue! Seeing as how you appreciate me so much, I shall write much oftener—*much* oftener!

With the quality of stories now being printed, your circulation should take a nice jump, and then you ought to be able to resume monthly publication.

Best wishes for the New Year, and may the magazine prosper!

CORWIN STICKNEY, JR.,
SFL No. 469,
28 Dawson Street,
Belleville, N. J.

(We would like to say that we printed your letter twice because it was so good. But it was only a blunder. This letter tells its story very well. We are living in hope that AMAZING STORIES will become once more a monthly publication. It is our readers' task to make it such. The circulation is growing.—EDITOR.)

A Letter from the Antipodes in Vigorous Refutation of One Also from That Region Which Criticized Our Point of View.

Editor, AMAZING STORIES:

Recently I have been looking through some back numbers of A.S. and I am more than satisfied with my choice of science fiction.

While I have it in mind I would like to request a sequel to "Peril Among the Drivers," one of the finest stories of its kind that I have ever read.

In Discussions of the May 1935 issue, I read with interest the letter of a fellow countryman, Mr. McNairn of Sydney and quite agreed with your comments on his letter. Your remarks could with justice have been stronger for his communication was in my opinion positively insulting. Taking Mr. McNairn's remarks on the spelling of certain words in American publications, he quotes such words as color, labor, odor, etc., and complains that the omission of the letter "u" is incorrect. Quoting from the Melbourne *Herald* an evening newspaper, I have just looked up the three words mentioned in tonight's edition of that paper, and in each case the "u" is omitted. I suggest that your correspondent should keep abreast of

the times and make sure of his facts before rushing into print. Then there is the complaint regarding the word aeroplane and the American version airplane. I suggest that the English aeroplane is retained only because it is more euphonious. He also embarks on a tirade against you for voicing your opinion of the possibility or otherwise of space travel. Your contention that space travel is impossible is backed up by an article which recently appeared in a newspaper here, which I quote briefly hereunder.

The article was headed "Moon is Denied Airmen." It went on to say, "Man will never be able to fly to the moon! Ultra short waves cannot be of real use to broadcasting." "These conclusions have been reached by D. E. V. Appleton, Wheatstone Professor of Physics, University of London, after many months of research. Dr. Appleton declares that in the upper atmosphere there is a vast layer of heat 1000° C., the existence of which was hitherto unknown to science. This layer constitutes an impassable barrier between the earth and the space beyond, since there is no known machine which would function in this layer. The professor also claims that the atmosphere instead of becoming colder as it recedes from the earth's surface, actually becomes hotter after the first seven miles. In regard to radio, the best brains of the world have lately been connected on micro waves, but the professor's discovery renders all this useless as the heat layer puts out of action all waves below the six metre mark as far as clear reception is concerned."

Now a word about slang, as referred to by Mr. McNairn. He forgot to mention that while our newspapers may not use it, Australians, generally, use as much, if not more slang than any other English speaking people with whom I have come into contact. You Mr. Editor have expressed an interest in Australian slang terms at various times, and if it would be of interest to you or your readers, I would be glad to compile a short glossary of the slang used here, and forward it to you.

F. G. SEYMOUR,
374 Park St.,
South Melb.,
Victoria, Australia.

(Such letters as this from distant Australia are received by the frequently scolded Editor with great appreciation. As a case of correct spelling, in Latin words, such as odor, color and the like, one would think, the penultimate letter "u" should be omitted. We borrow words from the Latin and change the spelling for no reason that can be assigned, at least in the instances cited and suggested above. The noun "plane" is un-

soubtedly derived from a Latin adjective, so it is not in the class with the words ending in "or" or "our," and there would seem to be no objection to join another word modified in its spelling and also derived from the Latin to give "airplane." The condition of space is conjectural as far as its temperature is concerned. By the most strenuous efforts only a trivial approach to outer space has been attained. We know little about it. By all means send us your glossary of Australian slang. We have never gone farther than "Aussie," for Australia.
—EDITOR.)

About Buying Copies of AMAZING STORIES in England.

Editor, AMAZING STORIES:

I have just finished reading your December issue of last year, which I thoroughly enjoyed. I should like to read this magazine oftener, but here in England the only magazines of exciting contents are the Horror Stories, which I consider tame. I like tales of astronomy and time, mingled with far advanced ideas. The last AMAZING STORIES magazine I bought was in July, 1934, and since then luck turned me aside in my search for more, until three days ago I found accidentally the one I mentioned. They hardly ever appear in Woolworth's, only Dime Detective and Western Stories by the score. Your magazine although only fiction which might easily become reality in the near future, offers to me more thrills and excitement than Edgar Wallace can. Will you please tell me how I can obtain a copy of each issue of AMAZING STORIES and also the cost in English money?

R. A. Cole,
"Highmore,"
Hemley Avenue,
Ifley, Oxford,
England.

(A regular assignment of this magazine goes regularly to England and you can obtain full particulars from our English Agent, whose address you will find at the foot of the Table of Contents.—EDITOR.)

Comments On the April Issue of AMAZING STORIES

Editor, AMAZING STORIES:

As a whole the April issue was to my way of thinking very good. The cover was as usual excellent. It was about time that the Machine Men of Zor were pictured on the front cover of the magazine. The Editorial was very interesting. I always enjoy your Editorials, Dr. Sloane, and hope for many

more as good as this one. Now for the stories. "Intelligence Undying" was excellent. I am really glad to see that Hamilton is back. He always produces good stories and this one was no exception. "A Modern Comedy of Science" was another good story, quite humorous in spots. Nathanson also is one of my favorites. Let's have more by him. The illustration for this story was great. "The Maelstrom of Atlantis" was the only story I did not like. It had a moth-eaten plot and was poorly written. "Labyrinth" was another excellent story. Neil R. Jones certainly has some imagination. By the last few paragraphs of the story I should judge that the Professor Jameson stories are going to be still more interesting. The author has an open field before him and should be able to continue this series indefinitely. I only hope so. More power to him. "The Pigmies of Phobos" was very interesting, a bit far fetched, but nevertheless I enjoyed it. It evidently calls for a sequel. Let's have it. "The Airwayman" was fairly good. Well, I certainly am sorry to know that you have turned bi-monthly. I only hope that you will return to a monthly, and from that on to a semi-monthly. You know that is one of my hopes; that AMAZING STORIES will be issued some day on the first and fifteenth of each month, and only then will I be satisfied. No, not even then. I almost forgot. I should say that you publish a quarterly besides the semi-monthly, and I repeat, only then will I be satisfied. But now, don't you think it is about time for a quarterly? A reprint edition would be all right. I am glad to see that Fearn got back at "Wild Bill" Hoskins. He also had great help from W. Clifton, who certainly knows his dimensions. I thought "Liners of Time" was great. To Sydney L. Birchby I'll say that in the February issue we had a story on "After Death What Then." Remember "We of the Sun" by Kostkos? It was a good story. The same applies to Mr. Birchby's letter.

I liked the smaller print much better than the kind you are using now. And where is "Uncertainty"?

FRANK BOLLMAYER,
2115 Gleason Avenue,
Bronx, N. Y.

(This is an unusually complimentary letter. We have every reason for printing such letters, for we get our share of criticism also, as you can see from our "Discussions." But the staff enjoys getting such a letter as yours. The size of the type has not been changed. There has been a slight change in the face. We never found out why "Wild Bill" selected such a title. "Uncertainty" is coming soon.—EDITOR.)

Back Numbers for Sale

Editor, AMAZING STORIES:

I have read many requests for back issues. I am now writing to say that I have several back issues of AMAZING STORIES and other magazines, and I am forced to dispose of my collection. If anyone desirous of acquiring back issues of Magazines of this type will write I will furnish full list and prices. I have a good number of the magazines in question.

WILLIAM MUCH,
328 S. W. 47th St.,
Cleveland, O.

A Good Review of AMAZING STORIES, and Very Suggestive.

Editor, AMAZING STORIES:

After reading the April issue I have come to the conclusion that the issue is the best by far of all the small AMAZING STORIES. However this does not place the issue above the large size AMAZING STORIES. There are very many good things about the issue, but there are also one or two bad things. The only things which marred the April issue were Morey's illustrations for "A Modern Comedy of Science," and "The Pygmies of Phobos." The rest of the illustrations were okay, but they were not as good as Morey's illustrations for the large size AMAZING STORIES. In the large size issues Morey was not the only artist illustrating the magazine, there were others besides himself. Now, Morey does all the interior illustrating and the cover besides. Why not give Morey a break, I'm sure he would turn out better illustrations. Bring back Muller, although he was not very practical, his illustration brought out the fact that the story was amazing! Also, what about Wesso? Do not bring back Dean!! Morey is much better than he.

Getting back to the April issue. The best interior illustration in the issue was the one for "Maelstrom of Atlantis." The cover is undoubtedly one of Morey's best! It is the best since AMAZING went small size. Now for the stories:

"Intelligence Undying"—all of Hamilton's stories are good, glad to see him in the issue, will be expecting him in the future issues. "A Modern Comedy of Science"—very, very good, although the plot is not new, the story is fine. "Labyrinth"—what else could one expect of a Professor Jameson story but a fine one. "The Pygmies of Phobos"—chalk one up for Ralph Robin. "The Airwayman"—would've enjoyed it more if it was a bit longer.

I hope you have gathered from this letter the following things:

That the April issue is the best so far of the small size AMAZING STORIES. That I prefer a large-sized magazine to a small one. That you should not overwork Morey.

And so until the next issue,

JOHN V. BALTADONIS,
1700 Frankford Ave.,
Philadelphia, Pa.

(An excellent letter needing no comment. But it makes us feel that you do like AMAZING STORIES.—EDITOR.)

A Letter of Severe Criticism, But a Happy Ending Takes the Sting Out of it.

Editor, AMAZING STORIES:

Congratulations on the April issue of AMAZING STORIES! Frankly, I generally class your publication slightly below your competitors, but you are swiftly improving. My greatest objection is the bi-monthly issuance. We science-fiction fans get a small enough amount of literature with three monthlies, and it is beginning to look as if one of your competitors is going bi-monthly. Have pity upon us poor, starved readers who are cursed with a passionate desire for science-fiction. Please do your part to quench our insatiable thirst.

Now to give my opinion (slightly warped, perhaps) of the last two issues of AMAZING STORIES; "The Maelstrom of Atlantis"—Mr. Skidmore certainly deserves praise for this story. By the way, Mr. Skidmore, (if you happen to see this) please inform Calvert of the fickleness of his fiancée, Joane Cromwell. In another current story, written by you, she is engaged to Donald Millstein. I can't stand by, twiddling my thumbs, and see our famous "Scientist and Adventurer Extraordinary" deceived by a woman.

"Intelligence Undying"—Very Good. "A Modern Comedy of Science"—Good. "21931"—Good, but I don't see the connection between the title and the story. Shouldn't it have been "31K07"? "When the Top Wobbled"—A good idea, but poorly written.

The rest fall far below average. I can't understand how "Hoffman's Widow" got into a science-fiction magazine.

Keep up the steady improvement. You are approaching the top.

CARLISLE HAYS,
Route 4, Box 370,
Louisville, Ky.

(We are glad you did find a good word to say for us. An editor needs encouragement. The trouble with the story "Hoffman's Widow" is that we may have stretched a point in giving it. It had a bit of anthropology in it.—EDITOR.)

**An English Lady Favors AMAZING STORIES
With a Charming Letter**

Editor, AMAZING STORIES:

Whatever you do, keep a tight hold on Nat Schachner, don't let him escape. I don't believe he could write a poor yarn, even if he wished to, and "World Gone Mad" is certainly well up to the standard of his previous work. I greatly enjoyed the latest Posi and Nega adventure, but I'm afraid the author let his pen run away with him at the end. As he says, hydrofluoric acid attacks glass forming silicon tetrafluoride, but it most certainly does not destroy the silicon atoms, and as for the acid "slithering into the . . . nucleus of the silicon atom" and "the . . . space between the proton and electron" being filled "with the pungent odor of hydrofluoric acid" . . . Oh fie! Mr. Skidmore. Of course I know perfectly well that Mr. Skidmore realizes the absurdity of this as well as anyone, and has done it to add to the drama of the story, but those readers who have not studied chemistry will get some very peculiar ideas on the subject if they believe it.

By the way you readers, why worry over such unimportant things as edges, size, illustrations etc. It is the story that counts, first, last, and all the time and in this respect A.S. certainly supplies the goods. As for the cover, this is fairly important as it is the means of attracting new readers. (I was roped in that way) and the October one was uncommonly attractive and artistic.

Finally—Let us have more stories about the stars. Come, ye authors! Be not afraid! Cling not so tenderly to the Solar System. Away—among the stars and nebulae. (I know it means travelling at many times the speed of light, but who cares?) And if you find any beings in those remote regions, for goodness sake let them speak in a language that is not composed almost entirely of consonants! With best wishes for the continued success of your splendid mag.

MISS CECILE CHAZALON,
5 Hove Park Villa,
Hove, Sussex, England.

(Your letter like so many from English readers is at once interesting and encouraging. And an Editor needs a little encouragement.—EDITOR.)

A Very Acceptable Letter. A Correspondent Asked For.

Editor, AMAZING STORIES:

From time to time I see requests in the Discussions department that the Quarterly be resumed—or, at least, that you give us a reprint one. As late developments seem to

indicate that the much needed and long waited for Renaissance in science-fiction is at hand I cast my vote for a quarterly, either a new or a reprint one, with some hope that it may have an effect.

Well, I learn that there is a possibility of more pages being added to AMAZING STORIES. They would be very much welcome. (I would express it more strongly, but see no great need to as there hasn't been the slightest suggestion—ahemm-m-m—that we may have a monthly again.)

"Luvium Under the Sand" by A. R. McKenzie in the June number is good. It is the first story I have read by this author, I believe. However, that which will be the most interesting reading ten years from now will be the editorials and not the stories that you are publishing. Your editorials are like the columns of O. O. McIntyre and the poems of Don Marquis and Ogden Nash, the more I read of them the more I like them.

Just in case the editor should publish this, I'll say that I'd like to correspond with science-fiction fans from any part of the world. I'm twenty-two years of age and, well, I like some of the science-fiction stories almost as much as the stories that appear in the *Saturday Evening Post*.

LAWRENCE LARKEY,
Route 1,
Hiltons, Virginia

(The Editor of AMAZING STORIES very seldom receives so acceptable and appreciative a letter as this. We know that requests for correspondents from readers have many times been successful. We hope your request will bring results.—EDITOR.)

Books to Exchange for Amazing Quartelyes

Editor, AMAZING STORIES:

I would be very pleased if some reader, who doesn't file his (or her) AMAZING QUARTERLYES, would send me the AMAZING QUARTERLYES for 1934 (Spring, Summer, Autumn and Winter). In exchange I will send to this reader the following:

1. One copy of—"At The Earth's Core"—by Edgar Rice Burroughs price—\$.75
2. One copy of—"The Land That Time Forgot"—also by Burroughs price—\$.75
3. Ten copies of Astounding stories—Feb. 1934 inclusive to Nov. 1934 price—\$2.00

I will send the books postpaid to the first offer of magazines in the best condition.

W. H. WALTHER,
10338 Loomis St.,
Chicago, Ill.

Old Time Favorites and New Authors; Which Shall it Be?

Editor, AMAZING STORIES:

As I look at the February issue of AMAZING STORIES, I find the magazine to be much different from what it was. The comet-tail title is much better than the straight line title used in 1934.

Morey is, in my estimation, very poor on the black and white illustrations. I do like his covers though. They are not so glaring and bold as on the other science-fiction magazines.

There is one thing I do not like about the later issues of AMAZING STORIES. That is the lack of the well-known authors. But then, that is not really necessary when you can find such good new ones.

I enjoyed "The Lurking Death," "Stroheim" and "We of the Sun," immensely.

The only suggestion I have to make is this. Why not bring the price of AMAZING STORIES down to 20c? You would be able to sell more copies I am sure.

G. KRUSE,
P. O. Box 134,
Manhattan, Kans.

(Stories of various merit come pouring in on us. The decision of acceptance is based strictly on merit. It seems that some authors feel that they belong to us or better that we belong to them. But we are working for our readers. Our success is gauged by letters from our readers, many of which are published here. It is interesting to see the different opinions expressed in them.—EDITOR.)

Encouragement and Appreciation in One Enclosure

Editor, AMAZING STORIES:

In the letter I wrote you a month ago, I said that I believed that AMAZING STORIES had started on the upward trend; but after that letter was in the corner mail-box, the writer began to wonder whether this was really true. BUT that marvelous April issue settled my fears, and now I have started to hope . . . to hope the magazine will reach the heights it did during 1928-32. I can say truthfully, though, that if it continues to improve in the manner that the December, February, and April issues did, that it will have eliminated all rivals by the end of 1936.

The four best in the April number were, in order of their quality, "Intelligence Undying," by Hamilton, "Labyrinth," by Neil R. Jones (a close second), "A Modern Comedy of Science," by Nathanson, and "The Pygmies of Phobos." "The Airwayman" was really bad. However, the rest of the issue made up for that one slip. Maybe I stand alone, but I think that Joe Wm.

Skidmore's latest serial, "The Maelstrom of Atlantis" was disappointing. As I said in my letter of a month ago, it seemed to be written in an amateurish style—à la Tom Swift.

The Professor Jameson stories are consistently fine—I have only one minute fault to find with them: The constant repetition of the names of the Zoromes gets rather tiresome and confusing when author Jones names a series of them.

If I were you, dear Editor, I would go large-size again to compete with xxxx xxxx smooth edges But oh, well, as you (was it you?) have said, it is useless to prate to an editor for a change in format, for that branch of the magazine cannot be changed by him.

Before I close I want to entreat to you, "Keep improving!"

DOUGLAS BLAKELY,
4516 Edina Blvd.
Minneapolis, Minn.

(We will follow your very good advice and try to keep improving. It may seem a trite thing to say but no one needs appreciation more than the Editor. He is the target of endless attacks, which he dutifully puts into print for the delectation of his readers. AMAZING STORIES seems to be on the upward path.—EDITOR.)

Announcement of a New Science-Fiction Society

Editor, AMAZING STORIES:

Imagine buying the April issue in January! But then that is better than not at all. I liked this issue very much. "The Airwayman" was an excellent short story.

I would like to see this letter in the "Discussions" dept. because of the following announcement.

The newest organization for science fiction fans is the Science Fiction Advancement Association. It was organized only a few months ago and is growing steadily. We hope to secure a larger audience for science fiction and help it progress. Our program will offer something to interest every fan in some particular branch or hobby. We will have a clearing house of information on science fiction and science. The S.F.A.A. also hopes to help beginning authors of science fiction. A monthly bulletin will also be published and a mail order science fiction library maintained.

The dues are small, only ten cents per year. Any further information will be gladly furnished if the fans will write me at the address given below.

· C. HAMILTON BLOOMER, JR.,
Managing Secretary, S.F.A.A.,
434 Guerrero Street, San Francisco, Calif.

An Appraisal of the Literature and Art in Recent Issues of AMAZING STORIES

Editor, AMAZING STORIES:

In reading the latest few issues, I have come to the conclusion that AMAZING STORIES is improving, that is since it went small size. For instance there is the comet title you have brought back, the back of the magazine, which is now more outstanding. This back attracts the eye more, and induces more people to read the magazine. However I still think that the large-sized AMAZING STORIES was much better.

Morey has improved greatly in the last few issues, and I think that the cover for "The Maelstrom of Atlantis" is the best since the large size. As for the inside illustrations, Morey is not so good, in fact I think that Morey's illustrations for the small size magazines are the worst he ever drew, that is with few exceptions.

There is one thing I would like to take up, that is the Quarterly. Will it ever appear again? I and a few friends, in fact all of my friends who read STF agree with me in the fact that AMAZING STORIES *SHOULD* put out a Quarterly. I am quite sure that there are many STF fans who would more than welcome the AMAZING STORIES Quarterly.

JOHN V. BALTADONIS,
1700 Frankford Ave.,
Philadelphia, Penna.

(Out of sixteen stories this critic rates one as "poor" and the rest "very good," "good," "fair plus" and a couple as "fair." There is a good average. Morey is a good artist. He has his own ideas, and that fact is a commendable trait in his character. It operates to give individuality.—*EDITOR.*)

A Letter from An Ardent Science-Fiction Reader

Editor, AMAZING STORIES:

Another year has passed over AMAZING STORIES. Since I am an ardent science fiction fan, contrary to the statements of many that only children enjoy it, I have watched the production of the science fiction magazines and their ratings with interest. Perhaps your files will disclose a similar letter of mine written in 1934 rating the various magazines.

In your letter to me in reply to my 1934 ratings and discussion you mentioned that it is impossible "in the nature of things" to compare such variable quantities as magazines. May I differ with you on this? There is one criterion that has been the final test

since life first started on this planet. It is the ability to survive. Survival value is the only true indication of real standing. Things must be judged in that light.

You are one of the few scholars that I have noticed giving the proper stress and importance to the real, fundamental things that the Ancient Civilizations have handed down to us. In your editorials you always develop your ideas historically and with proper emphasis on all contributors, whether they may be of the elder days or modern. This is very essential; from the epistemological viewpoint this is the only correct way to do it. Some day I should like to see the editorials collected into a book of essays.

However I must make one serious criticism in regard to make-up of AMAZING STORIES. "The Discussions" has been turned over to children. Not that I have any desire to prevent youth from giving their viewpoints, but for many issues now, I have received only the same kind of viewpoints. They lack depth. I cannot believe that all the readers of AMAZING STORIES are children. It is due, probably, to an oversight in selection of letters for publication.

The only comment that I should like to make on the percentage ratings is that your two competitors seem to be flattening out as regards the per cent of stories in each class; AMAZING STORIES is still lagging behind however.

Why not try a new policy of giving the readers stories that have psychological and sociological backgrounds. So many of the stories are merely paintings to cover machines and physico-chemical reactions. Far be it from me to deride my own profession, but that type alone soon becomes monotonous.

And in closing may I extend my best wishes for a better year, and if nothing prevents I will be having another rating in a year.

THOS. S. GARDNER,
P. O. Box 1924,
Knoxville, Tenn.

(AMAZING STORIES is not overdoing the printing of letters from young readers, there are not so many of those letters as you seem to think. And criticism and appreciation from the young is interesting. It is offset in these columns by some, the great majority, of letters from readers who seem from their letters to be of mature years. But how can we tell what the age of a correspondent may be? Perhaps some author will take up your suggestion about psychological and sociological stories. The danger is that they might be dry.—*EDITOR.*)

A Letter From the Antipodes, Only One of Many We Are Favored With Coming From Australia.

Editor, AMAZING STORIES:

I have read and procured many a magazine in an endeavour to secure an interesting and thrilling Science-Fiction magazine, and until six months ago I was unrewarded for my endeavours. At this time, at the advice of many pals, I secured an AMAZING STORIES, which I have read at every opportunity.

The stories that I am most interested in concern future war or manner of war, e.g. "World gone Mad," in October's issue. In some queer manner fighting and all concerned with fighting hold my deepest interest; especially any containing tales of aeroplanes. Two extremely interesting and exciting stories were "Conquests of the Planets," and "Men Created for Death." Nat Schachner, in my personal opinion, writes an exceptionally clever and imaginary story.

Many people consider all magazines such as AMAZING STORIES ridiculous and impossible. Impossible at the present, but in the future they may and will, partly, be a positive fact. Not so many years back, aeroplanes and flying were impossibilities, look at them now, extensive progress every year. Men thinking of flying had their work cut out to avoid a padded-cell, (an asylum).

A story which greatly improved one issue was "The Chemistry Murder Case," which, in reality changed the run of the book, and made it more interesting. My favourite authors are Mr. Campbell, Jr., Harl Vincent, J. W. Skidmore and Neil R. Jones.

AMAZING STORIES is the favourite magazine in our district, and many of our pals find it very difficult to secure, probably, on account of its popularity. Worse luck, we have no such clever and imaginary authors among our people, not saying, they are all, well, shall we say "saps"; but they have not the imagination or the industry to conceive such a wonderful magazine. Excuse my enthusiasm, but, judging by "Discussions," I am only one of many thousands of admiring readers.

One more thing. I would sincerely like a pen-cobber in any part of the world, preferably in America. I am 16 years old, and promise to answer all correspondents.

Well, dear Editor, this is about all I have to say, with the exception that I would be very grateful to appear in our "Discussions," and here's wishing your thousands of readers shall become millions.

N. J. O'NEILL,
1 Fitzgerald St.,
Waverly, Sydney, N.S.W. Australia.

(It is a subject of pride for us that AMAZING STORIES is read by so many in your continent. One of our correspondents says that we have too many letters from young readers. We only wish we had more as good as yours from young or old.—EDITOR.)

Compliments for AMAZING STORIES from One Who Means All He Writes

Editor, AMAZING STORIES:

AMAZING is still on top—despite the fact that it is now a bi-monthly. However, I fear it will not remain so unless a change of price is effected. Though some people can afford to pay 25c for AMAZING, the majority will buy a cheaper magazine, notwithstanding the inferior quality of the literature. As I understand it, a pulp mag is dependent, for the most part, upon the ads and not upon the purchase price. If A.S.'s price was lowered, more people would buy it, which in turn would boost the advertising.

I am very pleased that you have changed the cover to your former "Comet Tail" Title. It greatly improves the appearance of the magazine. I would very much like to see reprints of "When The Sleeper Wakes," and "Food of The Gods," both by H. G. Wells. To my knowledge, these have never been printed in a science-fiction magazine before.

I am anxious to obtain the following back numbers of AMAZING, and would appreciate it if any person having back numbers to dispose of would communicate with me. 1934—Jan., Feb., May, July, August, Dec., 1935—Jan. to July, inclusive. I will either buy, or trade for other science-fiction.

As a final word don't pay any attention to those complainers of size, rough edges, binding, etc. I have calculated that AMAZING contains quite a bit more reading material in its present smaller size than it did in the larger.

HAYWARD S. KIRBY, JR.
Griswold Rd.,
Rye, N. Y.

(Watch the "Discussions" pages and you will often find some reader's announcement to the effect that he has back issues to dispose of. We have long made it a point to publish such announcements and sometimes, not always, we receive a letter telling us that "Discussions" produced the desired result. We will investigate the two Wells' stories you mention. At one time we published several stories by this author.—EDITOR.)

A Vivid Response to a Letter from Mr. Welks, Printed on Page 140 of the February Issue of This Magazine.

Editor, AMAZING STORIES:

The "damned spot" refuses to "out." I hope that the fact that you are on the other side in this little controversy ("Scrap," Mr. Welks) won't deter you from printing this more or less direct reply to a London brickbat recently hurled at my head.

Mr. Welks, you apparently think that Mr. Bloomer and I collaborated on our recent missives. Let me assure you that I never heard of Mr. Bloomer before your outburst in the current issue, and that I don't recall reading his letter at all. You quote from his missive and then include me in your reply, with "A sweeping statement, gentlemen."

A statement that I never made, Mr. Welks.

Most of the slang now in use in America is transitory. The clinché phrases, ("Sez you!" "Oh yeah!") have their day and then die out. One seldom hears "Skiddoo" and the kindred expressions of that same era; those are the ones you would have quoted a few years back. I have never heard a blue-blooded pilar (*sic*) of Boston society refer to anything as anything. In fact, I've never seen a blue-blooded Boston pillar, but I don't think that they are typical Americans, by any means. Boston is a very small corner of a very large country. "Dames," by the way, has a long and honorable English lineage which runs clear back to the old French. That interesting little phrase: "Aw! Why don't youse guys quit bellyachin'?" is Gangster American, corresponding with your cockney (or, better yet, your river-front) English. The correct form would be: "Aw, why don't youse guys quit bellyachin'?" You say you prefer the more lucid "Stop grumbling!" Why not "Quit bellyachin'!", "Can it!" or, even more lucidly, "Shut up!" Also, your "Sound Films" are our "Talkies."

Mr. Welks, what good old English phrase are you going to substitute for " deserves the razzberry"? "Brick-batty" was, as far as I know, coined by yours truly. (Invented by myself.) The English *don't* own the English language, and they didn't invent it. Not very much of it. It came from the French, the German, the Italian, the Greek, the Latin; and the original tongue resulted from a fusion of two other languages. The "New English Dictionary" will easily illustrate this point.

Mr. Welks, I wish you to consider your statement: "Shakespearean English is not appreciably different from that spoken in this era." Kindly answer this, if you do

answer it, in Shakespearean English, making it as idiomatic as possible, being careful to observe the Correct Word Order, the scattering of capitals, and all the obsolete forms you can find. Perhaps you can discover some new differences and uses by this method.

In case you're interested, modern trend is toward the elimination of the apostrophe in words where it always occurs. Thus: "Dont'" "Youve'" "Isn't". It will give the typesetters an easier job and will lead to faster and smoother reading. Here's hoping, Mr. Welks, that you don't die of apoplexy before this letter reaches you. ("Nuts" is out [not in good taste]. The usual form is "Nerts.") I hope that this letter proves intolerable, or can you take it?

WM. BARNES HOSKINS,
Damned Spot Local No. 1,
65 N. Pleasant St.,
Oberlin, Ohio.

P.S. AMAZING is holding up well under the bi-monthly strain. Here's to a quick recovery.

(This is an entertaining letter, even in its curiously named Local. It is one of those cases where one is not sure whether it is to be taken seriously. Lady Macbeth might be taken as the patron of the Local. The writer seems up to date, a good deal more than we are, who still have a fondness for the well established forms of language rather than for the "trends" which the writer refers to. Yet even if one does prefer metrical verse and regular spelling, such a person need not feel out-dated and behind the age. In some ways it is better to be behind than in too emphasized an advance. Omitting apostrophes is not quite safe; it will sometimes bring about curious results.—EDITOR.)

The Right to Use the Impossible in Science-Fiction Stories.

Editor, AMAZING STORIES:

As much as I hate to write criticism of any story, I think it is my duty to tell you about one of these stories. The story I refer to is "The Moon Dwellers." It was all right in its place, but one thing wrong is how can one make such a tube to be so straight without a break somewhere near the top. I know that you will think that I am talking through my hat. And could a body travel through a tube at such a rate without it taking the breath out of his body? I know that person was in some kind of a suit. But the point is when a body of any substance is traveling through space so fast and so long, that it would burn on its way. I know that I am getting away from the story, but

my opinion is that when the man from the moon was coming down to earth wouldn't he be burnt to death when he is traveling so fast. Well I guess it's time for me to finish "The Terror out of Space." I hate to give such criticism to the author, because he always gave very nice stories. I hope you don't mind my writing because I am in a hurry to read "The Terror out of Space." So long for now and here's hoping much success for the many stories and their readers.

GEORGE KING, JR.,
135 Denison Avenue,
Toronto, Canada.

(We are glad to notice that you wanted to get back to the last chapter of the very story you complain of. If we adhered to the possible, we might change the name of the magazine, for mathematically true or correct stories would limit the scope of our pages greatly. Our authors are entitled to the liberty of giving away to their imaginations of what might be, were things a little different.—EDITOR.)

A Fourteen Year Old Reader Tells Us What He Thinks of AMAZING STORIES

Editor, AMAZING STORIES:

I have been going to write you for about a month, but never seemed to get around to it; however, your request for letters to appear in "Discussions" gave me the required impetus—so here I am.

Corwin Stickney, Jr., whose excellent letter appeared in the likewise excellent February number, voiced my opinions exactly regarding the sudden and happy turn for the better. I can really say, without so much as an atom of prevarication, that the February AMAZING is better than the Feb. xxxx Stories, and far better than the January xxxx Stories. Honestly, I think that by the end of 1936, AMAZING STORIES will be at the top again, as it was in its younger days. Now, the only thing you have to do, is to continue advancing in this wonderful way, and to go monthly again. Sez I, the last 3 issues of AMAZING have been worth every cent paid for them.

And now for the stories. Here they are in order of their quality: (1) "When the Top Wobbled," Endersby. (2) "We of the Sun," Kostkos. (3) "The Lurking Death," Rose. (4) "21931," Keith. (5) "Hoffman's Widow," Oles, (how did that get in?).

I cannot save all the parts of a serial until I have it all, to read it. The temptation is very overpowering; result: I read Part I of "Maelstrom of Atlantis" by Skidmore. You will notice that I haven't included it in the above list. The reason for that is that

I don't just know where it should belong. Also Joseph Wm. Skidmore has in my humble opinion (at least in this story) a "Tom Swift" style of writing. If you, dear Editor, have ever read any of the Tom Swift books, you will know what I mean.

In conclusion I have two more points—no, three. No. 1. (Everybody's doing it, so here it is.) I am fourteen years of age in tenth year of school. No. 2. Here's hoping that we have more discussion columns, with bigger, better and more intelligently written letters. No. 3. Best wishes of the year, yet new, to you and all the staff.

DOUGLAS BLAKELY,
4516 Edina Boulevard,
Minneapolis, Minn.

(When we receive as good a letter as this from a fourteen year old reader, we wish that more fourteeners, as we may call them, would do as well as this correspondent. Circumstances are such that we feel well pleased about the future, and we hope to merit such appreciation as you express, from many other readers young and old.—EDITOR.)

A Request for a Loan of AMAZING STORIES Containing "Skylark of Space"

Editor, AMAZING STORIES:

I will give the issues of AMAZING STORIES containing "Triplanetary," a four-part serial by Dr. Edward E. Smith, to anyone who will lend me the issues with "Skylark of Space" in them. I promise to return any issues which I borrow in the same condition in which I receive them. My copies of "Triplanetary" have their complete covers.

HENRY LEMAIRE,
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